

Supporting Information

Table of contents

Supplemental Tables	2
Table S1 Cytotoxicities (IC ₅₀ in μM) of gold(I) complexes against several human cancer cell lines.	2
Table S2 Normalized gold contents of yield and loss (%) in individual steps of SCF processes.	3
Table S3 A list of significantly regulated pathways identified by SCF-based proteomics approach.	4
Supplemental Figures	5
Figure S1 Processes of subcellular fractionation and protein extraction.	5
Figure S2 Immunoblotting validations of subcellular fractions.	6
Figure S3 Immunoblotting validations of the protein extraction sample.	7
Figure S4 Subcellular distributions of gold metal in HeLa cells treated with gold(I) complexes.	8
Figure S5 Functional classifications of identified proteins in WCL, total SCF, or individual fractions by their specific GO-CC annotations.	9
Figure S6 Mevalonolactone or geranyleranyl pyrophosphate and gold(I) complexes treatment on MDA-MB-231 cells.	10
Supplemental Data	
Data S1 The full list of nuclear proteins identified in NUC fractions. Related to Results - Up-regulation of nuclear p14 ^{ARF} by AuRF treatment.	11
Data S2 The full list of NUC proteins with 'transcription' as keywords in the BIOBASE Knowledge Library description. Related to Results - Up-regulation of nuclear p14 ^{ARF} by AuRF treatment.	53
Data S3 SCF-based proteomics data which was used for KeyNode-mediated pathway analysis. Related to Results - Identification of HMGCR as a target of AuRF.	67

Table S1 | Cytotoxicities (IC₅₀ in μ M) of gold(I) complexes against several human cancer cell lines. The cytotoxicities of AuRF and AuPEt against a panel of human cancer cell lines (48 h treatment) were examined by the MTT assays (the cytotoxicities of AuTu and AuCb have been published (1)). The half maximal inhibitory concentrations (IC₅₀ values) revealed the wide spectrum of anticancer activities of these gold(I) complexes.

Cancer cell lines	AuRF	AuPEt
HeLa ^a	1.2 $\pm$ 0.1	11.8 $\pm$ 1.4
NCI-H460 ^b	2.5 $\pm$ 0.9	34.6 $\pm$ 1.2
MDA-MB-231 ^c	0.69 $\pm$ 0.17	2.1 $\pm$ 0.4
SUNE1 ^d	1.2 $\pm$ 0.1	9.8 $\pm$ 0.9
HepG2 ^e	3.0 $\pm$ 0.2	14.0 $\pm$ 0.8
SW480 ^f	2.0 $\pm$ 0.3	5.3 $\pm$ 0.2
PLC ^g	1.1 $\pm$ 0.3	4.7 $\pm$ 0.3
MCF-7 ^h	1.3 $\pm$ 0.1	4.5 $\pm$ 0.4
SKOV-3 ⁱ	0.64 $\pm$ 0.06	4.5 $\pm$ 0.4

^a Cervical epithelioid carcinoma. ^b Lung carcinoma. ^c Breast carcinoma. ^d Nasopharyngeal carcinoma. ^e Hepatocellular carcinoma. ^f Colon carcinoma. ^g Liver carcinoma. ^h Breast carcinoma. ⁱ Ovarian carcinoma.
 (1) Tian, S. H., Siu, F. M., Kui, S. C. F., Lok, C. N. and Che, C. M. (2011) Anticancer gold(I)-phosphine complexes as potent autophagy-inducing agents. Chemical communications 47, 9318-9320

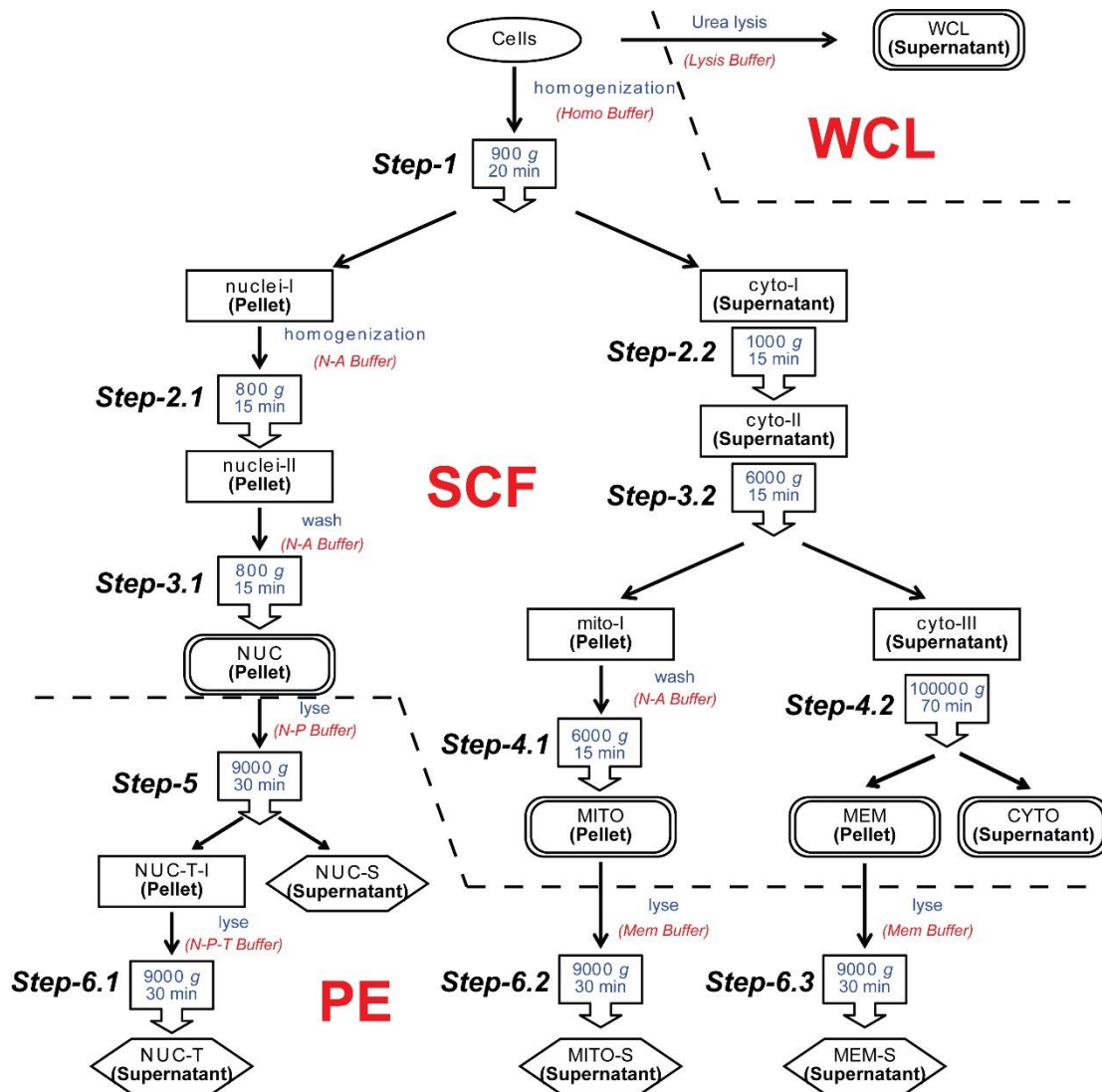
Table S2 | Normalized gold contents of yield and loss (%) in individual steps of SCF processes. The final fractions (NUC, CYTO, MITO, and MEM, showing in bold) and all the intermediate fractions in the SCF processes (whole cells, nuclei-I, nuclei-II, cyto-I, cyto-II, cyto-III, and mito-I) were subjected to ICP-MS assays for determination of subcellular distributions of gold metal. The yield and loss in every step were normalized by cell number.

		AuRF	AuPEt	AuTu	AuCb
<i>Step-1</i>	nuclei-I	27.2 ± 4.7	23.7 ± 5.6	52.6 ± 1.5	25.2 ± 2.5
	cyto-I	70.5 ± 4.2	69.1 ± 6.9	47.3 ± 1.6	74.6 ± 3.5
	Loss-1	2.3 ± 1.2	7.2 ± 1.8	0.1 ± 0.1	0.2 ± 0.1
<i>Step-2.1</i>	nuclei-II	18.4 ± 5.0	15.2 ± 5.6	49.8 ± 1.2	20.4 ± 0.3
	Loss-2.1	8.8 ± 7.1	8.3 ± 2.1	2.8 ± 1.4	4.8 ± 2.6
<i>Step-2.2</i>	cyto-II	69.1 ± 4.9	61.9 ± 6.4	43.5 ± 3.0	61.0 ± 0.3
	Loss-2.2	1.4 ± 0.7	7.2 ± 6.3	3.8 ± 1.9	13.5 ± 3.8
<i>Step-3.1</i>	NUC	17.9 ± 4.9	14.0 ± 6.0	49.2 ± 1.5	19.2 ± 1.1
	Loss-3.1	0.5 ± 0.3	1.4 ± 0.7	0.6 ± 0.5	1.2 ± 1.1
<i>Step-3.2</i>	cyto-III	59.5 ± 3.2	50.2 ± 5.3	20.7 ± 2.6	44.2 ± 1.6
	mito-I	8.6 ± 2.2	8.4 ± 2.9	15.7 ± 5.6	14.6 ± 3.1
	Loss-3.2	1.0 ± 0.1	3.3 ± 3.6	7.1 ± 4.5	2.3 ± 1.8
<i>Step-4.1</i>	MITO	6.4 ± 2.2	6.4 ± 2.7	15.1 ± 6.1	4.3 ± 1.2
	Loss-4.1	2.2 ± 2.0	1.9 ± 1.0	0.6 ± 0.5	10.3 ± 2.0
<i>Step-4.2</i>	CYTO	31.4 ± 3.9	26.9 ± 7.5	9.4 ± 1.8	9.8 ± 1.8
	MEM	22.7 ± 0.9	20.2 ± 3.0	11.0 ± 1.8	28.1 ± 1.1
	Loss-4.2	5.4 ± 5.2	3.1 ± 2.4	0.3 ± 0.2	6.2 ± 2.2
Whole cells		100	100	100	100
Total loss		21.6 ± 8.5	32.5 ± 6.2	15.3 ± 6.3	38.5 ± 1.1

Table S3 | A list of significantly regulated pathways identified by SCF-based proteomics approach. Pathways identified with p -value < 0.05 are considered significant, detailed formulae for deducing the p -value are available in the STAR methods.

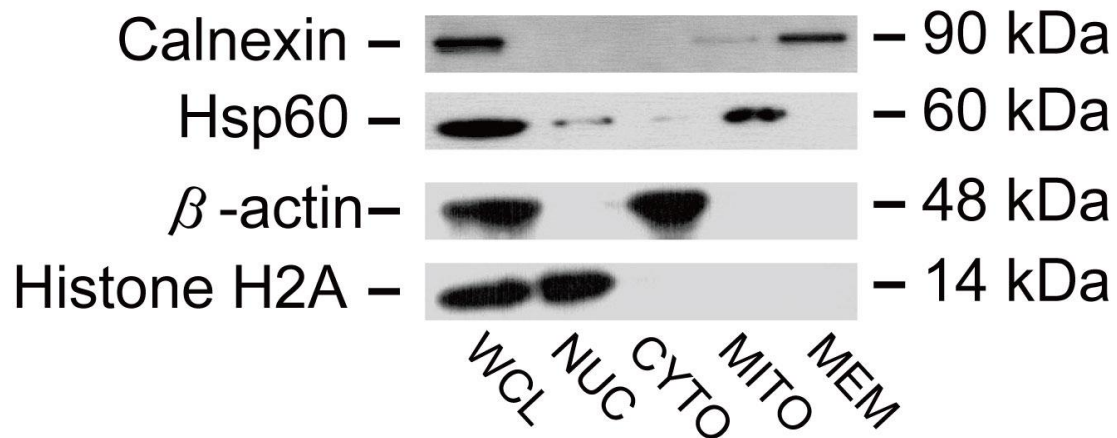
Rank	Pathway ID	Pathway description	p -value
1	CH000003782	L-tryptophan ---> NAD ⁺ , NADPH	5.4E-05
2	CH000000770	beta-catenin network	1.4E-04
3	CH000000758	stress-associated pathways	2.2E-04
4	CH000003783	biosynthesis and degradation of nicotinamide, NAD ⁺ ,NADP ⁺	5.4E-04
5	CH000004254	HMGCR regulation	9.7E-04
6	CH000000600	beta-catenin:E-cadherin complex phosphorylation and dephosphorylation	9.7E-04
7	CH000000851	JNK pathway	3.9E-03
8	CH000000599	beta-catenin:E-cadherin complex phosphorylation and dissociation	4.3E-03
9	CH000000753	B-cell antigen receptor pathway	9.5E-03
10	CH000000751	T-cell antigen receptor pathway	1.2E-02
11	CH000000747	E2F network	1.8E-02

Figure S1 | Processes of subcellular fractionation and protein extraction.



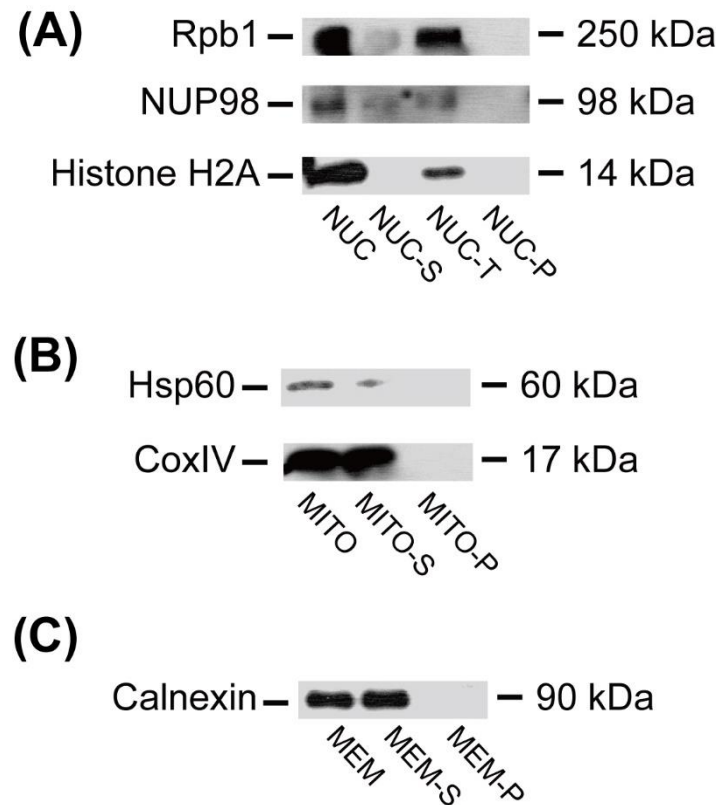
The detailed methods were described in Supplemental Methods. **WCL**, whole cell lysate, obtained by traditional urea lysis (described in main text). **SCF**, subcellular fractionation, includes *Step-1*, *Step-2.1*, *Step-2.2*, *Step-3.1*, *Step-3.2*, *Step-4.1*, and *Step-4.2*. **PE**, protein extraction, includes *Step-5*, *Step-6.1*, *Step-6.2*, and *Step-6.3*.

Figure S2 | Validation of subcellular fractions by immunoblotting.



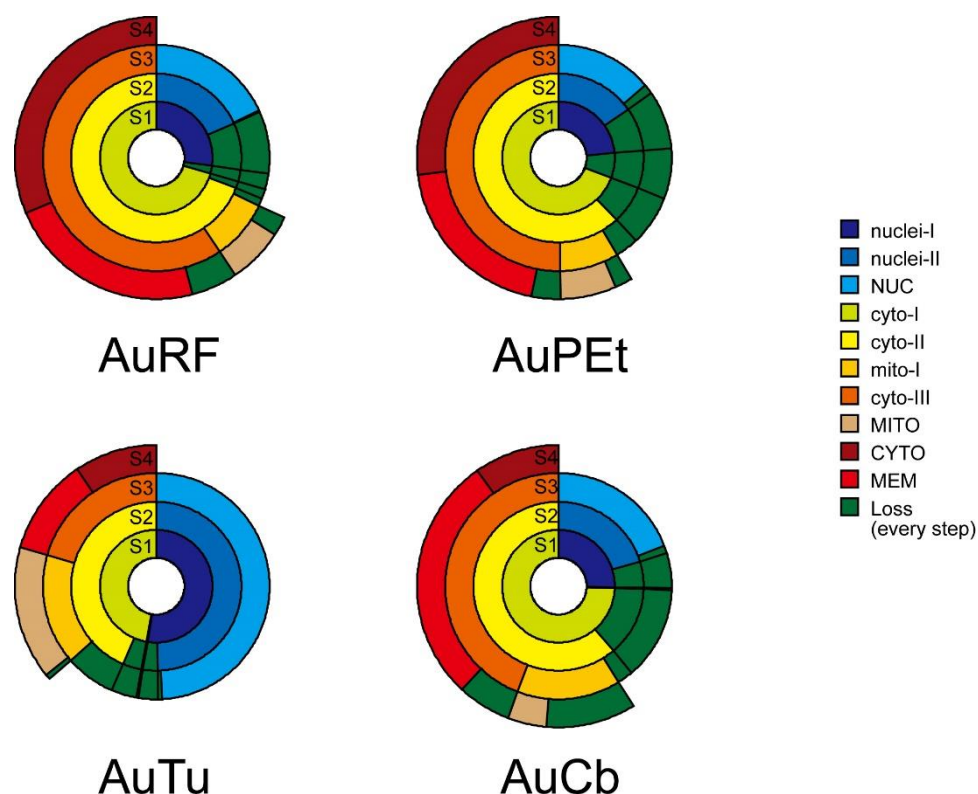
Immunoblotting of the subcellular fractions. The biological markers used were: calnexin (membrane fraction, MEM), Hsp60 (mitochondrial fraction, MITO), β -actin (cytoplasmic fraction, CYTO), and Histone H2A (nuclear fraction, NUC). The loading amounts of samples were normalized by cell number.

Figure S3 | Immunoblotting validations of the protein extraction sample.



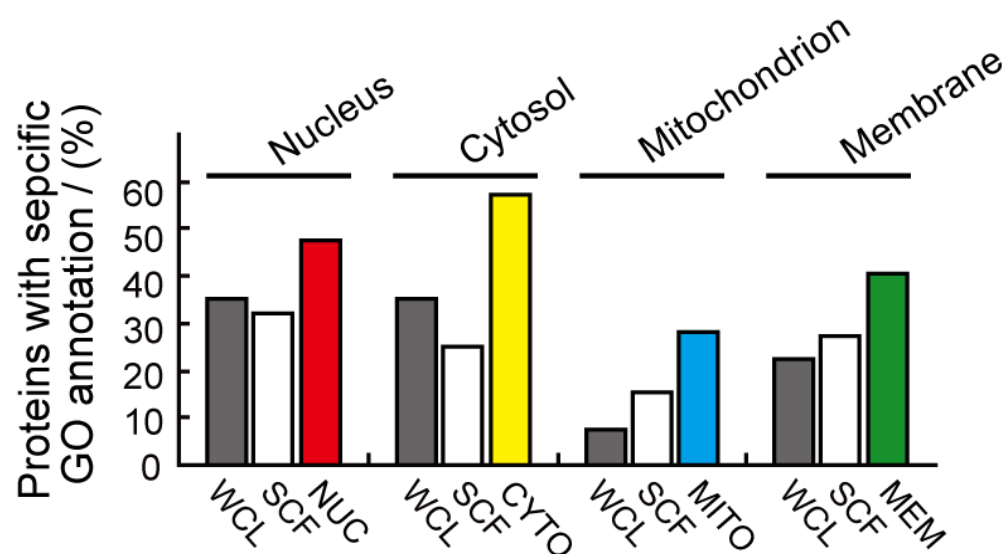
By the processes of protein extraction (Figure S1), the NUC fraction was further separated into two parts: NUC-S (containing proteins that are soluble and loosely bound to DNA) and NUC-T (containing proteins in nuclear membrane and proteins that are tightly bound to DNA), the final pellet (NUC-P) was discarded. The MITO fraction was further extracted as MITO-S (containing soluble mitochondrial proteins), the final pellet (MITO-P) was discarded. The MEM fraction was further extracted as MEM-S (containing soluble membrane proteins), the final pellet (MEM-P) was discarded. The efficiency of protein extraction was validated by immunoblotting of markers specifically located in different organelles. (A) Rpb1 (RNA polymerase II largest subunit, functions in nuclear matrix, 250 kDa), NUP98 (nucleoporin 98 kDa, nuclear envelope protein, 98 kDa), and Histone H2A (14 kDa) were used for protein extraction markers from NUC fraction (NUC-S, NUC-T, and NUC-P). (B) Hsp60 (60 kDa) and CoxIV (cytochrome oxidase subunit IV, locates on the mitochondrial membrane, 17 kDa) were used for protein extraction markers from MITO fraction (MITO-S and MITO-P). (C) Calnexin (90 kDa) was used for protein extraction markers from MEM (MEM-S and MEM-P). The loading amounts of samples were normalized by the cell number. Since there was no marker found in the pellets (NUC-P, MITO-P, and MEM-P), the extraction yields were satisfactory.

Figure S4 | Subcellular distributions of gold in HeLa cells treated with gold(I) complexes.



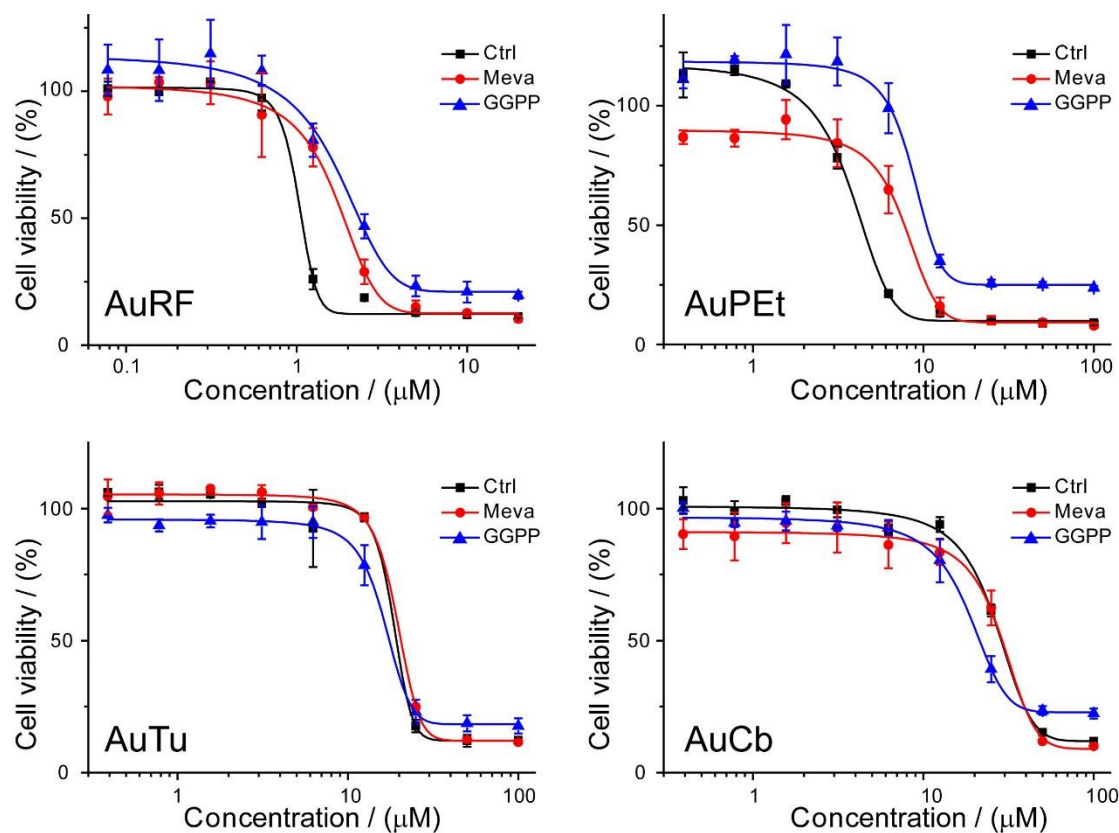
The ring charts showed the normalized gold contents of intermediates, fractions, or losses (shown in different colors, the legends were shown in the right panel) in the steps of SCF processes. From inner to outer, four layers of rings (S1, S2, S3 and S4) represent four major steps of separation [S1 = *Step-1* (whole cells = nuclei-I + cyto-I + Loss-1); S2 = *Step-2.1* (nuclei-I = nuclei-II + Loss-2.1) + *Step-2.2* (cyto-I = cyto-II + Loss-2.2); S3 = *Step-3.1* (nuclei-II = NUC + Loss-3.1) + *Step-3.2* (cyto-II = cyto-III + mito-I + Loss-3.2); S4 = *Step-4.1* (mito-I = MITO + Loss-4.1) + *Step-4.2* (cyto-III = CYTO + MEM + Loss-4.2)]. Among the gold(I) complexes, AuRF and AuPEt exhibited similar subcellular distributions. After *Step-1* separation, most of the gold metal (70%) was found to accumulate in cyto-I. After separation of mitochondria in *Step-3.2*, most of the gold metal (60% or 50%, respectively) still located in cyto-III, implying that the mitochondria as well as the nuclei were not the main target. After the *Step-4.2* separation, the gold metal from AuRF or AuPEt was distributed in CYTO (about 30%) and MEM (about 20%). For the AuCb, most of the gold metal (44%) located in cyto-III after the first several steps of separation. After separation of cyto-III into CYTO and MEM in *Step-4.2*, 28% of gold metal was found to accumulate in MEM, which was 2.9-fold enriched than that in CYTO. This might imply AuCb targeted MEM dominantly. The gold metal from AuTu showed different distributions. After *Step-1* separation, about half of the gold metal (53%) was found in the nuclei-I.

Figure S5 | Functional classifications of identified proteins.



Functional classifications of identified proteins in WCL (grey), total SCF (four fractions merged; white), or individual fractions by their specific GO-CC annotations (colored).

Figure S6 | Mevalonolactone or geranyleranyl pyrophosphate and gold(I) complexes treatment on MDA-MB-231 cells.



By addition with mevalonolactone (Meva, 100μM) or geranyleranyl pyrophosphate ammonium salt (GGPP, 3μg/mL), the viabilities of MDA-MB-231 cells were rescued when treated with AuRF (A) or AuPEt (B), but not AuTu (C) or AuCb (D). The error bars indicated standard deviation of replicates.

Data S1 | Full list of nuclear proteins with their normalized abundances in different biological replicates.

Protein IDs	Vehicle_1	Vehicle_2	Vehicle_3	Vehicle_4	AuRF_1	AuRF_2	AuRF_3	AuRF_4
AOA024R4E5	339314	339317	448635	60577	0	812187	124335	119155
AOA075B6E2	8398200	8270717	6875042	5028975	455966	3341207	2933349	3998494
AOA075B6F6	248860	68431	65759	57453	148455	225637	193820	196013
AOA075B6F9	62293	62293	0	0	0	0	0	0
AOA075B6N1	88963	88964	0	0	127780	157787	98103	76158
AOA075B6P9	8413049	7481236	6919602	5901287	3580394	6229526	7651515	12398261
AOA087WSV8	27386	27386	0	0	528970	0	36875	31357
AOA087WT20	150111	136312	26511	0	57494	256717	71462	42590
AOA087WU53	129102	88703	83210	20118	84593	58990	111932	127803
AOA0A0MQR7	155139	135547	43148	89958	75992	156746	88238	95013
AOA0A0MQS4	1424	0	0	0	604	591	262	0
AOA0A0MQU0	676717	24456	0	0	318671	237064	210651	314764
AOA0A0MQZ6	163946	178471	124271	105329	118383	115136	92887	93152
AOA0A0MR50	218949	218951	0	0	0	0	130970	295598
AOA0A0MR81	6520	0	0	0	7387	4665	25866	17226
AOA0A0MRM9	1396111	1334746	1751373	1303173	702951	1027039	1178675	419240
AOA0A0MS69	1495137	1495150	1266029	1082003	11189000	2632869	2240056	890348
AOA0A0MSG4	0	0	0	0	10474	15584	13935	16935
AOA0A0MSG8	16628	23785	45788	46046	61144	20014	33522	27931
AOA0A0MSH9	8594	8265	16954	13850	16315	12037	5303	8546
AOA0A0MSK5	448527	448531	435608	308314	408550	612658	1094916	810790
AOA0A0MSZ9	13731	14448	24548	30661	0	19586	0	0
AOA0A0MT47	0	5881	0	132413	0	156527	0	218130
AOA0A0MTI1	78717	161315	146755	105289	112140	207614	279403	257161
AOA0A0MTP7	170758	152557	168772	131968	64140	80735	134953	128198
AOA0A6YYA0	47086	75130	50256	105002	43715	95438	80485	87151
AOA0A6YYG7	3347	8826	25151	24205	4324	14117	16806	36747
AOA0B4J1R6	58522	75158	58782	52001	52384	37280	34367	34388
AOA0B4J1T0	0	7187	10343	7627	911	10498	29191	6430
AOA0B4J1V9	53932	53932	78538	35265	0	29103	28605	24969
AOA0B4J1Z1	13948631	13940194	11827884	9058584	4542889	3965632	13118966	9509810
AOA0B4J2I0	6608	18354	22852	13170	18164	6868	8704	9004
AOA0C4DG07	5752	6384	4618	7363	5683	2187	3860	0
AOA0C4DG44	207712	228587	231052	341971	752255	285920	186289	159491
AOA0C4DG89	96052	127256	170468	195577	298226	43819	75391	74960
AOA0C4DGA2	1655480	1643188	601276	711160	1382851	1928437	978558	1044527
AOA0C4DGD4	148100	111067	176084	140193	136729	101099	138471	123866
AOA0C4DGG1	213542	152409	19219	0	42148	27731	224415	93672
AOA0C4DGH5	6706	7568	7038	10588	1704	3042	11236	896
AOA0G2JHJ2	15638	19154	22913	51951	0	8970	31586	14154
AOA0G2JHN8	0	0	0	0	0	0	0	1344
AOA0G2JI50	97718	97718	263246	71515	0	226591	158949	95306
AOA0G2JL1	1649563	1649577	0	0	0	0	94424	0
AOA0R4J2E8	26300065	27564412	22354173	13937462	10886783	20025916	19532679	28753300
AOA140T933	1917674	2385469	1906714	1326560	1926626	2850379	1594804	1300842

A0A140T947	55902	55903	0	0	0	0	17571	24587
A0A140T9S0	7375	11442	8864	11752	0	4821	7654	9806
A0A1B0GXE7	39292	23384	0	0	11844	36003	21408	0
A0A1B0GXI6	0	0	0	0	0	2457	4935	0
A0A1P0AYU5	1213678	1548236	1224808	643481	1512917	1572275	1511600	1314085
A0A1X7SBZ2	18351851	18352007	11488766	5891098	674620	13949523	9454181	10276723
A0A2C9F2M7	65427	81814	11150	9460	205253	40961	23282	31311
A0A2C9F2P4	706854	701488	725894	433738	1760845	1775460	566935	426730
A0A2R8Y849	1514017	1725580	742806	778434	727942	1346826	1175687	2233324
A0A2U3TZH2	90054	90055	126847	87889	2705400	681823	163859	0
A0A2U3TZJ4	4668230	4649476	5342097	3417010	5755959	6582104	1748276	1284667
A0A2U3TZY2	422635	393090	516452	274353	266831	371655	397152	395822
A0FGR8	302216	304496	335732	359048	139760	210150	221599	300110
A0PJW6	74596	84684	66087	12283	51292	0	60967	69782
A1L0T0	678527	784984	782610	662602	390073	685063	656175	567072
A2A2M0	117285	80710	52659	44321	87627	100711	83786	68339
A2A2M0	170716	170717	75465	0	0	0	123747	110555
A2A2U4	6083175	6111806	9150072	8582835	441556	665851	9912919	6040689
A2A3R7	2163093	2163112	2969092	2569177	0	3898814	2812962	3932888
A2A3S1	234476	234478	236414	207502	149840	314912	376510	332548
A2RRB2	5296	12409	5805	7801	2323	15186	8295	4143
A6NCL7	436509	403674	4294892	3494752	638133	4715245	2423825	2494672
A6NHN7	5804	10518	22256	13108	0	10445	19252	0
A6NHR2	280776	280778	226347	322050	108350	317580	346050	209451
A6NHR9	219089	238783	300192	281076	338887	259510	286253	276053
A6NKT7	103836	116172	52345	30731	140322	116503	88200	174468
A6NNK5	45149	64229	9615	42315	167003	45897	15385	10095
A6NNU8	0	0	0	154082	0	0	0	0
A6PVH9	3045	1667	0	0	3684	1707	0	0
A8K878	46891	46891	0	0	1782300	462782	309337	129764
A8MU58	144841	144843	0	0	0	0	59788	52201
A8MUD9	4809247	4666862	3699881	4122471	4855860	5070927	5180466	3992066
A8MV53	128439	128440	0	0	0	0	0	34168
A8MW50	48734	34961	28080	0	21878	48659	20667	38088
A8MX15	351087	357092	17203	24373	117852	386713	210136	275957
A8MXL6	173495	293483	339496	354152	128387	288786	340908	404980
A8MXP8	0	0	0	0	0	0	0	48735
B1AH48	59573	91006	123440	111047	74041	60465	91265	92931
B1AH87	15679	22565	36060	16698	10337	72173	73667	43097
B1AHB1	993879	1051366	915250	606079	89931	294916	848274	952729
B1AK81	51731	48831	51977	54146	34239	31919	59836	67055
B1AKG0	45391	0	220881	154944	42760	198215	88257	263294
B1AKN6	0	0	0	18157	0	0	0	11256
B1ALC3	76577	0	0	0	50509	86858	54975	67577
B1AMU7	294539	294541	300137	178083	0	356766	165423	175869
B1ANR0	218921	117695	109107	0	7976	84888	106147	137538
B1AP15	0	0	32706	27666	0	26736	17163	9666
B1APM4	43959	43960	0	0	0	0	0	0
B2ZWH1	231413	231415	205981	93473	0	376834	158350	0

B4DGL8	158904	160165	111704	126813	55475	170657	127148	98937
B4DJV2	19405080	20180441	11100266	13026883	33673895	18923960	26790147	13045705
B4DKB2	0	0	31578	70515	16844	20472	0	35413
B4DP61	19366	49260	68556	57884	109490	36832	17793	18458
B4DQA8	44311	37614	29868	34927	38642	53193	28170	28572
B4DWY7	42005567	42005924	63464304	314909668	4594300	24493319	63516866	263054003
B4DY92	0	0	0	0	10845	0	0	0
B4DZB7	0	0	0	0	2285	0	0	0
B4E3S0	163552	207681	187208	130303	138102	108749	96723	60922
B5MCF9	975024	786672	543089	300232	734672	819972	1113697	1106492
B5MCL5	310563	303680	282918	169634	77756	79628	185328	227553
B5MCT8	2685516	2685539	3274114	3625700	0	97177	2175106	3367325
B5MD17	0	0	0	0	914730	253618	438946	317968
B5MD38	0	0	0	0	107800	246352	0	0
B5ME19	5432	0	0	0	95699	252518	1925	1324
B7WPG3	20149	13672	22639	21525	10089	101720	1309	12148
B7Z1S6	636266	636272	392457	151249	255150	313099	136715	54175
B7Z2R7	29449	19116	17328	0	0	14947	12981	12210
B7Z7B0	0	0	0	0	0	170580	0	0
B7Z9I1	5766215	6068089	5129371	5055113	15016485	7028049	5218550	2679216
B8ZZF8	258289	258292	0	0	0	0	328195	85124
B8ZZJ0	10561	0	0	0	4529	6445	4461	2366
B8ZZQ6	93268	93269	193981	246656	318470	35848	0	0
B8ZZU8	443869	443873	293653	65238	333780	155798	258821	205413
B9A008	53255	76241	71255	69105	85840	124232	128068	166926
B9A062	1020948	1020957	643453	901946	1594300	1167395	1317762	805895
B9ZVN9	365713	426445	280711	100655	136071	131140	285813	632385
C9IY40	214302	274204	167791	179266	108334	157411	260067	300759
C9IY70	121841	121842	22637	0	0	0	0	0
C9IYQ7	123700	123701	85560	0	0	0	105460	104370
C9J053	52784	52785	0	0	0	55388	31393	51777
C9J0X5	688972	705626	786485	660226	381396	480652	325412	326006
C9J2Y9	83215	83216	0	0	0	0	314230	216327
C9J3D7	174026	139823	128597	13971	9910	80902	62309	57224
C9J3N8	327767	327770	271789	115005	259180	252070	277013	235684
C9J4K0	9621	14042	9002	0	0	0	11103	3458
C9J4M6	29362	58772	75150	92885	61581	105585	103082	119285
C9J4Z3	1660339	1698078	727401	399958	94349	1648887	1504926	1952119
C9J6L4	0	0	0	0	282190	0	0	0
C9J7Y7	347586	347589	0	111870	0	128894	58483	288019
C9J813	70110	49021	0	0	33146	41443	21447	22007
C9J8B4	110049	110050	207645	145240	0	96990	136267	100641
C9J8K7	1204	0	0	0	626	1105	368	866
C9J8M3	543060	543065	0	0	0	694481	599614	179991
C9J8Q1	0	0	0	0	1123600	278109	0	0
C9J9K3	20961805	20811473	13357662	9883927	8907837	17782103	13071738	15337769
C9J9W7	149503	118454	178860	229663	198862	172742	172321	182238
C9JA28	668843	557970	928891	645741	411366	397535	455218	524215
C9JA35	18444	0	0	0	0	37634	17843	37837

C9JAG1	57922	105880	80373	190153	23161	85953	111139	86580
C9JAW5	8257	8507	16428	12392	2022	7214	23379	5671
C9JAZ1	142395	189579	146343	396140	32280	61991	95370	48846
C9JB90	950793	950801	922306	815318	875100	0	829795	798999
C9JC63	110043	56620	77357	47495	28511	145481	184363	141469
C9JCD9	389876	389880	373121	145124	138560	455702	235663	145096
C9JD32	2585436	2585458	266488	98260	20701	950462	1461045	2042607
C9JDL7	77867	77867	65442	0	0	48308	90734	136951
C9JDV8	296096	293514	0	56162	154877	323962	253525	127043
C9JE15	4645625	4645665	4685530	0	0	4283067	4118294	2683596
C9JFL4	85551	85552	0	0	0	59322	28685	26470
C9JFR7	8017438	8008968	7303949	5432498	30681000	13903832	11720280	3207316
C9JGL8	1854765	1843998	3525639	2403621	137980	326400	2093593	2252174
C9JGQ0	111297	114062	254418	140251	84920	347301	276381	362135
C9JH92	331649	331652	304411	526868	984820	554579	368693	204448
C9JI87	383538	383542	296706	159168	1046900	835468	2351591	2350495
C9JIE4	8786	9423	10771	14779	25748	7741	44351	4246
C9JKY1	50353	37653	0	0	12975	45450	27605	56396
C9JLU1	53912	38859	44366	57019	66627	49804	83092	43814
C9JP16	81323	57998	22807	0	58149	60270	83734	87243
C9JPK5	192821	192822	0	0	0	0	133467	142720
C9JQ07	0	0	0	0	0	0	0	0
C9JQ41	0	0	0	0	1383800	296785	0	0
C9JQG7	62154	62155	0	0	0	250465	48979	66044
C9JQN7	24051	46422	43523	8761	41258	2456	9720	2231
C9JQV0	326412	326415	719927	742061	0	1361217	229554	96804
C9JRJ8	0	0	0	0	0	23566	18962	25526
C9JRL4	155626	155627	186636	83615	479770	243012	78360	38874
C9JSE3	0	0	0	0	0	3756	0	0
C9JVB6	32548	32548	0	0	0	8191	21531	17175
C9JVN9	66319	118068	176631	90664	33607	130140	151309	137661
C9JW37	13040	0	0	10938	5340	3068	0	0
C9JW74	13646	21805	18716	6185	6134	12565	13869	18312
C9JWJ8	1888	3068	6409	0	0	0	10861	0
C9JXB8	4267624	3813023	4387826	3558677	1313603	1983028	3716379	4566253
C9JYN0	258111	231539	207529	214202	0	136520	110892	167153
C9JZG1	128453	128454	85511	0	93528	16227	37480	36421
C9K028	55106	0	0	0	21439	26966	23293	0
D3DQ64	0	0	0	0	0	24424	12632	0
D3YTB1	1391181	1023043	509674	318705	243778	1398344	973095	1165409
D6R904	932823	932831	884563	769234	975220	1650820	536528	342443
D6R937	95778	95779	122483	82414	0	0	80208	63996
D6R994	218695	218697	418714	173561	1076600	347308	292758	184201
D6R9I9	450094	450098	331250	197748	162510	366256	164783	119303
D6R9P3	31145109	31220078	27892074	16717954	47385211	31569437	21540640	17155700
D6R9X2	19858	16035	32088	33185	42083	289104	50789	9430
D6RA24	0	0	0	0	0	61918	0	14787
D6RA57	926710	938898	353708	80914	80847	75578	701754	762413
D6RAF8	1042935	1277585	908212	764874	2164852	1579318	1508654	1095747

D6RAN4	1576585	1576598	522084	568871	0	212215	1252980	999855
D6RAR6	0	4732	12277	14333	0	0	4011	0
D6RAW2	0	0	0	0	534780	449751	0	0
D6RBE9	6237	5231	2940	4747	924	1339	17841	1084
D6RBR0	747670	743972	710607	33617	186642	512843	433447	214682
D6RC52	1693389	1700556	1402076	874803	120379	2514356	1513752	1318762
D6RCD0	41648	50744	42681	32198	31541	49884	36479	35765
D6RCN3	0	0	0	0	270890	0	0	0
D6RDG0	0	39017	0	0	31250	57603	0	257056
D6RDG7	121486	121487	60321	0	19843	132443	147689	65765
D6RDI2	78965	97504	97922	116478	114068	65117	30509	52387
D6RDV0	38365	37706	0	0	27866	53648	0	33523
D6RDY6	0	0	0	63042	65832	0	19335	17102
D6RE82	69291	69292	776134	478925	0	67030	72280	649779
D6REA0	20081	35117	24226	31683	9620	15544	23672	18765
D6RF87	55562	55563	84874	0	302940	73556	0	55719
D6RFM5	5213438	4744516	4280483	3575021	4544717	8212116	7599084	6291592
D6RG13	6112814	6112866	4941120	1017007	0	1585949	4223446	4755837
D6RG18	10758	17153	12151	20848	6055	7204	11876	6238
D6RG39	62059	51011	50741	120195	20009	83840	29519	8516
D6RGI3	428186	428190	2052282	337985	4611400	1460784	111115	44948
D6RGZ2	48035	137573	60296	212624	66935	0	59676	0
D6RH20	182347	182348	173787	317736	240890	185967	351991	251293
D6RHH0	883193	883200	807014	330291	166890	578188	724699	779972
D6RIU4	640333	778162	628597	677381	370195	664213	700134	840926
D6RIZ4	28620	21157	23966	0	14168	18796	24270	37624
D6RJI2	79515438	79011035	85105951	88653936	343884299	133812129	132307369	101711539
E1B6W4	93052	93053	153130	81432	39706	88582	75779	54140
E5RFV8	34547	31964	47001	0	3043	1230	23400	22575
E5RGC1	0	997	1400	1700	0	0	4075	1141
E5RGC7	63741	68023	73049	72089	41125	55268	105198	56775
E5RGC8	79241	79242	0	0	330450	382631	117644	92409
E5RGD2	77302	77303	146690	67869	0	0	93965	79953
E5RGK5	23574	24752	48100	28383	9534	21643	47961	24786
E5RGS9	173567	173568	49176	0	0	0	111362	112139
E5RHE4	2764	0	0	0	140	1413	165	417
E5RHG8	156713	156714	0	0	250083	247911	118215	140672
E5RHL8	0	7219	0	0	0	0	11279	0
E5RHT6	2174	0	0	22960	1864	1608	1089	1267
E5RI99	11340514	11607785	7261512	3741533	875317	3974183	7738357	6975917
E5RJ86	29662	29617	32676	30969	14939	24520	19286	15892
E5RJD2	12845	0	0	0	6892	9199	4943	4774
E5RJI7	92909	106414	109764	111151	103364	141821	119571	46435
E5RJR5	951640	951648	727836	517744	1404900	1287587	1072575	552220
E5RJU9	65326	65327	344916	399862	209910	229880	285692	79066
E5RJW4	0	0	0	0	0	0	0	0
E7EMW7	0	0	0	0	0	0	0	0
E7EN32	160538	160539	83313	0	0	111609	72448	0
E7EN77	5564	229	5316	2975	248	6840	17356	4038

E7ENA5	420931	420934	347300	148117	1919800	618648	522105	366919
E7EQR4	495398	509214	583639	228576	402042	172275	305751	270933
E7EQT4	8257219	8243110	8374911	4220302	3376525	8462101	7088163	4453310
E7EQV9	1714540	1039882	1360841	454110	1599039	2307433	1557412	3152061
E7ES08	2596869	2596892	1750837	3059317	942040	936787	1807017	623541
E7ETU9	87935	87936	0	0	1507300	109139	233463	0
E7EU85	202507	213446	295509	8630	113406	394018	170267	249881
E7EUL6	0	0	3623	3069	415	0	4976	0
E7EUP3	12025	7355	43494	44740	31896	7766	26172	15515
E7EV45	481586	491049	31223	0	1649900	872857	561021	401976
E7EV54	851935	854224	448800	559504	583227	705317	835833	781783
E7EVX8	88727	63290	65372	83429	94935	35667	67170	66963
E7EW05	12907	0	116113	9923	56448	17979	14606	21152
E7EWE5	94069	94069	104664	271821	1312900	131019	187163	273228
E7EWK1	177929	177930	98360	0	434110	268237	145013	72599
E7EX53	5382890	5382935	6335090	6776621	0	2217876	6186511	7802877
E9PAU2	103919	114287	94093	94244	108216	46841	38872	30146
E9PB93	109052	111819	10354	19660	7613	8124	86701	35781
E9PBS1	49566	40842	75879	30413	38293	72531	48867	46900
E9PBT8	48581	48581	329069	334534	895030	201032	416589	316758
E9PC15	485496	572281	653141	343975	257173	599859	536044	523792
E9PC52	2445284	2317539	2478691	825244	3434980	1647277	1899773	1711217
E9PD53	346280	304215	402155	302983	313253	279711	301327	350011
E9PD92	0	0	0	0	116720	196828	0	0
E9PE17	33196	47400	40912	79544	16792	98064	158766	108346
E9PEC3	33365	33366	0	0	1193000	147355	0	0
E9PEI0	45124	46162	62079	62888	53239	27118	36328	55257
E9PEW0	30665	30665	0	0	0	11499	22542	0
E9PF10	329334	329337	404961	60557	0	596610	234291	425633
E9PF19	245996	295962	209502	189712	229048	245605	250221	361128
E9PFD7	67602	61701	96511	69596	18549	81061	69806	78467
E9PFE3	144460	144462	36763	0	0	0	15396	15003
E9PFK5	173002	173004	100515	59133	0	217386	131009	124903
E9PFN5	142185	148202	124986	233735	128049	131656	178455	123995
E9PG40	0	0	0	0	0	3221	3075	2823
E9PGB1	10732	0	0	8447	0	5917	0	0
E9PGG1	122235	122236	151607	107517	108780	190488	68718	42584
E9PGZ4	198234	275135	260122	162998	177504	285574	264463	210127
E9PH38	252897	252899	0	0	89792	203406	47312	111336
E9PH64	157946	198631	195152	193911	39946	105623	178666	116758
E9PH82	181359	181360	98982	61532	0	0	128310	115634
E9PHA2	31796	31457	27226	0	1968	35212	43431	20814
E9PHM2	9790	23732	41948	42416	6990	17058	49060	20126
E9PI14	22897	31785	56415	46674	11310	69210	46485	32407
E9PID8	1204932	1210594	1282433	685236	1974855	1356839	786586	433268
E9PIG4	0	0	0	0	540160	122232	0	0
E9PJ14	2659	6150	4206	10195	736	0	10179	1834
E9PJC4	73174	0	0	70683	0	0	64585	71797
E9PJD9	968804	968813	913902	475342	0	1210454	495010	1685557

E9PJE6	0	0	0	0	0	0	0	127737
E9PJU0	0	0	32128	0	206480	105206	47550	36908
E9PK09	101836	85545	28161	15623	413153	117075	154381	146646
E9PK21	23654	35691	41131	42631	21201	16178	26005	20158
E9PKH6	215423	237398	142346	259168	68346	141748	270177	114327
E9PKI2	55582	55583	0	71492	71071	78162	33604	0
E9PKL6	366769	366772	339769	128104	0	0	507894	405737
E9PKQ4	0	0	2857	4025	0	0	14807	1296
E9PKU3	61522	0	0	0	23542	55448	43348	18532
E9PL01	354503	526147	306275	805984	418894	529157	746601	683391
E9PLD0	1735971	2099420	1855411	1641240	1090297	1062130	1056418	1131246
E9PLD3	49994	74117	471835	439605	91676	43084	19477	146247
E9PLT1	17590	30708	32386	28563	6370	14015	17667	0
E9PMS6	50063	50063	82798	0	0	69471	31074	23032
E9PMW7	3599933	3599963	3266263	1012960	25036000	6497270	1885853	1096019
E9PPB2	0	308167	0	179069	0	0	0	0
E9PPG9	64008	157644	144064	252593	245048	78189	111459	127367
E9PPI9	63322	72278	82065	95712	100881	33740	51168	58264
E9PPR1	330469	266150	182613	89803	334165	291756	152669	197383
E9PPY3	302845	291108	485867	82451	130022	720197	380068	472927
E9PQ56	75050	177634	196384	224982	300789	121786	76533	36042
E9PQ61	510024	498501	368859	345848	104358	544338	493454	439804
E9PQB7	232135	235442	117860	38656	85501	163992	94672	66454
E9PQD7	2090680	2090697	2814284	2500698	43711	2803749	2178857	284703
E9PR77	81924	65913	110774	184026	167619	91854	69344	78706
E9PRI2	15197	0	20967	0	21285	0	0	14444
E9PRR7	0	0	0	0	0	192539	0	0
E9PRX3	37288	54475	81383	33433	10664	12317	9408	64593
E9PS41	596736	574071	370865	211257	82920	276312	404892	462846
E9PS42	114982	114983	0	0	0	0	0	0
F2Z2V6	227207	227209	227641	141538	0	0	130724	66465
F2Z388	2494593	2303751	2420834	1970799	1030184	2701623	2610708	3393137
F2Z3N7	0	0	0	0	0	3498	2177	2938
F2Z3P9	59522	43289	29952	0	43848	56798	34346	28084
F5GX29	66719	82247	51448	130153	56946	77460	68984	0
F5GX61	600775	625096	399638	497803	363454	561351	425149	611649
F5GX77	1179044	1179054	1109884	308098	255410	925994	630241	542825
F5GXD8	95219	95220	0	0	0	104709	45202	21437
F5GXG4	1231012	756818	338270	454469	1069080	1626707	1350310	1156796
F5GY37	417402	417405	577651	655897	0	216352	579289	713968
F5GYJ5	25719	25719	0	0	0	0	53792	38387
F5GYT3	7204	15393	15731	23673	23951	4816	0	10587
F5GYV5	98922	98922	119494	186517	0	95979	101597	96575
F5GZP0	77209	46074	40412	34291	10812	7973	36985	3296
F5H0E9	1898	0	0	0	1222	1640	0	1854
F5H0M4	0	41936	0	0	0	45488	0	34695
F5H101	12200	16562	0	0	23899	18805	15148	34271
F5H157	1343	0	2056	2428	0	1651	2619	0
F5H282	79539	33301	41080	32377	154969	54335	41864	35878

F5H2I2	78780	78781	0	0	0	0	20692	37755
F5H2X5	2991	5113	4245	7529	635	2352	6790	1844
F5H365	312409	312412	546597	82093	442150	1327708	253524	244145
F5H3C1	40200	27045	32438	61019	22237	15627	24806	7771
F5H3E1	37698	64539	37612	26522	134722	91982	32808	47016
F5H4N4	0	574	967	1374	0	0	0	0
F5H579	14309	6565	7299	5380	877	12967	52525	6642
F5H5G4	90118	90118	0	0	0	0	0	0
F5H669	1647550	1610312	3248501	2764966	163769	1000751	176858	372697
F5H6I7	469622	543412	751099	562517	411062	473858	631487	778342
F5H6P7	367023	367026	133471	113814	566720	599040	244566	168164
F5H6T1	0	0	170449	74883	94074	175530	0	0
F5H6X0	0	0	0	0	0	81671	0	0
F5H7L5	31064	41647	59483	80326	45722	35962	40766	43320
F5H823	78315	78316	0	0	0	0	0	0
F5H8D7	20005	23988	17536	21267	14940	10568	40162	14597
F6QPS0	6041	8310	18148	20518	1885	0	24268	11613
F6T1Q0	2951	6453	0	0	1501	0	8320	3798
F8VNT9	312837	279877	292199	1033032	1518400	567758	409571	210946
F8VP50	0	29938	29423	33642	18987	49526	52692	0
F8VPF3	1203408	1203418	1356257	930678	667550	1816840	1057961	1095993
F8VQ14	45457	57256	68793	271602	50304	56017	31412	52120
F8VQE1	7164576	7164637	6911695	2565096	1908000	4341327	3264086	490400
F8VQQ8	24558	28783	13361	19216	0	0	27856	0
F8VQR7	43688	43689	0	0	0	19105	0	0
F8VQX6	177801	242443	184779	195243	115733	199923	146997	159593
F8VR90	5894	7502	15446	19982	12374	10248	13770	13804
F8VRG3	34248	34248	73339	60099	63897	59028	34113	30260
F8VRJ2	187905	155542	0	48152	136755	189228	79614	53759
F8VS12	49899	0	0	0	21889	30634	0	18369
F8VSA6	16867	19716	0	31197	64631	14721	19239	19244
F8VSL7	711393	529210	775893	649825	347636	516355	694147	927858
F8VUJ9	406824	325038	269156	256883	216284	317695	252104	327588
F8VUY8	96287	57865	96846	116848	75136	84846	143190	95031
F8VVL1	41846	41846	70178	0	54840	55543	0	0
F8VVM2	2317943	2317962	1662790	1855815	2104400	1757563	2411950	2363917
F8VYE8	1317664	1291138	1176519	1281140	545655	1161942	1001239	822361
F8VYK5	75385	75386	0	0	32683	71251	0	53440
F8VZG5	9273465	9273544	7900617	4855943	22112000	10521758	11243672	7731820
F8VZX2	593124	549671	603651	434309	813683	353928	372246	259685
F8W031	3325487	3607188	4025461	2567903	14913508	3718005	4133263	2044376
F8W1I4	22568	22568	0	0	0	0	18076	12906
F8W1N5	1301916	1262831	1436798	582474	1623342	1523279	584779	462344
F8W1R7	866128	733083	829619	578588	587677	1048808	799358	576193
F8W7Q4	138826	177409	52280	0	141326	201054	141848	96321
F8W7R3	0	0	15667	0	0	5923	10254	0
F8W895	159395	159396	264982	185303	0	43164	276716	556799
F8W8Y1	0	238164	0	0	0	0	0	0
F8W914	1865110	1865126	0	0	0	0	2713073	1131469

F8W954	8188	0	0	0	3421	6489	9267	1658
F8W9Z6	0	5284	2264	10115	10782	0	0	0
F8WAM2	30502	0	56667	0	0	0	0	10066
F8WBJ6	44270	0	0	0	47817	40031	29350	0
F8WBS5	472289	111263	185184	11698	110878	434309	468816	441394
F8WBW6	334768	334771	259106	0	122140	331356	72520	35071
F8WBW8	3349292	3581806	3247342	2421814	1215771	1585947	3638713	4670317
F8WC75	1626	0	4068	4766	0	3289	10144	0
F8WDT8	240278	240280	281873	188083	0	417892	332870	315310
F8WE06	34317	22677	58728	13836	19023	34727	28697	41867
F8WE16	33349	0	0	0	34539	0	0	0
F8WE41	0	0	569859	417911	0	0	387322	266096
F8WE65	44638	111292	31957	39700	81091	13395	38035	5297
F8WEE2	439959	439963	335204	105058	0	143965	257517	137225
F8WF48	39959	0	0	0	5610	46838	19212	22114
G3V153	152783	112304	67112	9104	250755	78230	90978	54298
G3V1A4	4090172	4090206	4216803	1946292	4714300	8996047	4218015	1312401
G3V1J0	33339	30384	40726	45759	0	23186	19377	0
G3V2V7	3532	3292	1988	0	4352	17939	20924	6027
G3V2V8	222478	222480	243241	168525	1047500	393283	171905	108639
G3V302	101657	101658	120363	82112	311440	99522	128221	87627
G3V325	13070	22705	24881	14704	12542	10388	22821	15748
G3V381	0	34339	0	0	0	0	0	42344
G3V3Y6	719944	719950	608386	239287	215620	1204238	97313	187868
G3V4B8	0	0	0	0	89339	93492	0	0
G3V4F2	119678	196359	79257	33505	414846	190428	102959	39691
G3V4F7	9096	0	14002	12359	17764	4989	0	5084
G3V4W0	79225235	79112546	71988275	75339574	18936863	81172979	96624160	80132787
G3V529	230256	230258	231398	55869	0	234044	166648	374393
G3V576	158005	236599	181818	146651	333682	153047	174484	161515
G3V5I6	91526	91527	109125	63928	59880	41623	72839	58641
G3XAH6	1911128	1911144	302114	398037	1548600	1603579	3057197	2149614
G5E972	220121	220122	129284	67992	0	160183	234185	344312
G5E9U9	0	0	0	0	0	0	6912	1781
G5E9V2	13446	0	0	0	6645	0	4881	0
G5E9W7	138512	155390	337344	85251	79790	137439	221137	195301
G5E9Y8	92603	99257	13209	14172	43942	277207	7171	0
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G8JLK1	5327	0	0	0	940	2326	1068	0
H0Y380	36374	86164	20314	14494	25750	41773	48158	40862
H0Y394	33955	22552	10179	0	11233	11989	5503	9806
H0Y3D6	37565	0	0	0	0	16836	17687	17757
H0Y431	38669	38669	0	0	42624	51002	0	0
H0Y4K5	32935	32935	0	0	0	0	0	102420
H0Y512	181629	239676	275082	234413	64365	168471	180782	179965
H0Y5I5	0	0	0	0	23399	18961	13750	15919
H0Y825	0	0	0	0	0	0	0	0
H0Y8E4	21056	25209	30290	12878	13557	33118	28112	21231
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H0YBC9	74225	0	153809	110835	1437633	106147	76369	57482
H0YBZ9	46551	46551	0	0	0	36329	0	33786
H0YCA5	4289	1977	1088	1737	1975	4789	5299	1999
H0YCG2	101420	153357	200344	172321	105524	122681	155825	308862
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H0YCZ2	0	0	0	0	0	0	0	0
H0YD13	343772	453781	709086	254308	293774	339190	448528	347843
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H0YDT9	600055	547299	543038	428605	644755	533536	583882	564477
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H0YDX5	2594329	2594351	1991743	1368396	0	1379413	2412230	890400
H0YE40	235097	235099	559594	727064	387330	542797	409097	149878
H0YE57	0	0	0	0	0	38917	28185	36989
H0YE74	482432	489437	404542	279307	478987	549894	336440	286956
H0YED6	165625	91445	24941	140219	134049	119535	113503	125654
H0YET2	22451	13752	0	0	0	18268	17692	0
H0YFI1	70821	51729	85613	87385	33702	55899	41882	41092
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H0YGP3	55531	55532	0	0	0	0	0	0
H0YHI8	31506	30578	0	0	0	0	0	0
H0YHJ8	40974	58364	75303	24341	31490	45013	58986	63334
H0YHM6	12941	26234	24110	0	0	22671	21902	16691
H0YHV5	9834	11817	11915	16109	5670	19648	10970	3324
H0YI27	91158	91159	0	0	0	0	28800	32310
H0YIK5	87448	87449	0	41327	0	95673	134066	170058
H0YIQ2	3066	0	10800	13628	10415	3683	0	0
H0YJ40	742246	839944	163174	335286	531517	1147611	1136227	485258
H0YJ92	26338	40905	19589	71946	40247	16318	21385	18780
H0YJB9	456432	456436	0	0	0	0	232768	103301
H0YJG0	9769	31052	16524	14656	14935	9567	0	12556
H0YJG4	105178	105179	0	0	0	0	32852	109465
H0YJN9	48390	48391	0	0	170220	92209	35222	39055
H0YJU3	129508	190099	176730	147802	0	0	0	0
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H7BYV1	10981	10725	0	0	12634	42789	10132	14605
H7BYW6	11989	0	13765	0	5358	13290	8404	10103
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H7C019	59385	96692	127335	188621	84399	70505	91054	165151
H7C040	188049	0	0	0	0	0	0	0
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H7C1A5	3793	5393	5686	7409	556	4560	18040	1973
H7C1J3	51301	51301	78468	106110	129100	38236	62526	41976
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H7C2I4	0	24711	49165	33246	22856	30387	15363	35773
H7C2W8	0	3010	0	2972	1859	1823	0	0
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H7C469	170829	135023	170395	182932	8741	133290	101533	53765
H7C4A8	114129	50523	41612	24532	44243	80291	52132	12835
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H7C4G8	27940	27254	52830	34566	9824	10134	46965	21971
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H7C541	7053	15282	11304	14969	1965	9303	14044	9224
H7C5C9	8255	9222	0	9453	0	6070	0	0
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O43819	68729	67788	41477	47915	45870	85873	55826	42323
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Q16706	302918	293194	340006	387854	176531	291905	329517	394742
Q16740	347882	346028	147292	150486	3689136	2898262	1771401	1119673
Q16777	17795929	16108620	12410738	35603130	16895702	16266722	15662475	6424868
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Q17RY6	4935	0	12338	13982	3623	22336	41424	31063

Q1ED39	188713	208324	0	0	24955	309443	241476	112702
Q1KMD3	3327782	3327810	2776687	847600	391130	2448823	3977307	4278963
Q27J81	18164	0	3632	3105	8295	15005	16697	8075
Q29RF7	3287428	3151007	4110809	2689180	1909487	3490407	3040416	3135426
Q2NL82	500704	290810	484650	555343	459883	163482	322594	328828
Q2TAY7	1208709	1245267	935463	737422	564091	934739	1371166	1294266
Q2VIR3	79168	84599	67936	39219	50924	64773	10653	59876
Q32P28	99931	68568	82754	45067	42677	93103	85608	76231
Q3BDU5	4040011	4012927	3896661	671756	0	49079	2563069	1849012
Q3SXM5	7610	12516	9347	16355	0	11533	12387	10222
Q3SY69	0	6818	6487	0	2685	4013	7197	0
Q3ZCQ8	1045189	1148501	1157703	1130953	545890	1055052	970101	1048701
Q496Y0	0	0	0	0	192132	0	0	82870
Q49A26	483592	522002	717447	309069	175987	695790	379003	433467
Q49AN9	1523385	1569986	880838	911889	986938	1586469	1234095	1135354
Q4ADV7	4521689	4521728	8502809	9130937	0	0	5396190	3223895
Q4G176	14558	16631	27296	19239	15028	22302	12146	9649
Q4KMQ2	6802	9995	11119	10139	0	4119	5992	2766
Q4ZIN3	0	0	0	10716	3511	0	17024	0
Q562R1	34743591	26509552	0	24203579	0	0	0	18189850
Q5BJH7	28580	17280	30553	0	28947	34987	12324	43454
Q5BKZ1	2725380	2692084	1818267	1098544	527240	1415755	1986228	2944952
Q5DID0	875	922	707	4413	0	328	2333	650
Q5FWE3	7836	12700	0	10056	0	0	9572	5005
Q5JP53	5025096	6003880	4625019	3487015	5126485	5556854	3675095	3254098
Q5JPU3	3584264	3584295	2267629	1260335	3590700	2303316	4747919	2717283
Q5JSK7	178352	178354	174348	0	112210	177813	0	0
Q5JTJ3	1027653	1027662	1062837	293055	2958700	1070823	713669	226412
Q5J TZ5	15309	7462	10824	13579	26060	25913	17095	3842
Q5J TZ9	61763	49123	61076	32543	12825	19137	39384	33103
Q5JVC1	0	0	0	0	368770	0	0	0
Q5JXJ0	2273	0	0	0	0	8688	6282	6024
Q5JXX1	293494	293497	375883	133054	125490	438687	191984	240374
Q5KS07	0	5805	4636	10107	1075	3174	6145	4517
Q5QJE6	293539	237925	328999	290679	316386	161359	298408	303672
Q5QNZ2	37745	37746	0	0	23039	22507	40117	47916
Q5QP56	2234	1458	0	2773	0	0	4130	0
Q5QPE8	57951	57951	58597	61804	198850	67951	77089	49709
Q5QPL9	650080	525303	660399	318989	986495	603987	524337	561932
Q5R3B4	46000	64855	49555	40210	36323	82761	95159	57340
Q5RHS7	0	3256	1966	1848	1012	1084	1873	660
Q5RI15	128711	33628	0	46814	16558	234747	190857	172994
Q5RKV6	321881	321884	462330	371163	173370	697024	427423	300177
Q5SRD1	175680	247500	249480	306531	135174	233453	292896	224892
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Q5SY16	52350	245161	112641	181472	147809	211742	96745	186979
Q5SZE2	37368	0	0	57931	30398	0	0	0
Q5T092	197542	158727	21986	0	110520	139503	94989	187955
Q5TOR7	0	0	119877	0	131640	205711	0	0

Q5T160	7234	7782	32907	12125	1491	19935	25046	9557
Q5T200	73940	73940	108052	95453	0	201648	103316	76647
Q5T280	373877	358594	105479	96687	128402	114081	126374	129670
Q5T3Q7	340457	340460	0	0	0	192257	158955	239942
Q5T5X7	0	7724	6578	7576	0	7930	10695	8599
Q5T760	0	0	53757	0	66870	0	0	0
Q5T7N0	10670978	10741186	9385871	5581013	1582241	8537367	11316408	12065945
Q5T7N3	0	0	0	0	1993	3631	0	0
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Q5T8C6	16132	0	0	0	29304	0	14933	0
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Q5T8U5	415460	438134	537203	635123	102585	269050	488487	634011
Q5T9A4	313055	427374	616890	463904	172930	524022	611672	522766
Q5T9K0	0	0	0	0	0	5006	0	9434
Q5TEJ7	8138	11336	11128	18135	2650	3909	11669	2595
Q5TG40	27731	24107	0	49877	65577	37277	42806	40563
Q5UCC4	43851	34362	58151	56973	19437	36250	46165	12355
Q5UIP0	637830	455875	578157	503633	860939	425011	525820	311242
Q5VT52	24890	24890	0	0	0	0	0	7817
Q5VT66	230998	282797	392928	239844	61216	338431	293779	248605
Q5VTL8	0	4098	8704	14810	5734	4708	5371	4051
Q5VTR2	4041	8006	7476	0	22366	5913	7566	5273
Q5VU10	11217	13676	0	0	16723	4263	10324	7118
Q5VVK9	214910	350178	253638	106527	171432	394348	274989	402432
Q5VYW8	154610	154611	143590	0	0	340013	76776	158934
Q5VZ46	136712	86312	40029	0	83486	136513	171256	124929
Q5XKP0	183137	208732	201292	295920	51521	141332	130221	98083
Q6DKI1	437062	514601	384831	314692	370651	480516	354836	373803
Q6GMV1	0	0	0	0	0	19420	20342	13117
Q6I9Y2	260823	238487	0	0	19357	28838	157152	198104
Q6IC98	284996	447628	366086	244654	0	72152	106333	284295
Q6ICH2	41833	41834	0	0	0	0	23980	25214
Q6IPT4	12068	18217	16205	15088	19143	6990	11954	5920
Q6KC79	156715	133120	237009	61195	112094	278845	141170	215261
Q6NUK1	670367	895959	621595	612631	496346	901610	920653	324830
Q6NUQ4	73599	40656	74585	96598	70494	29646	35293	77773
Q6NVY1	27688	27688	0	0	275550	112637	21631	16631
Q6NY19	0	0	0	0	0	0	0	6400
Q6P1J9	35930	76976	54267	59735	75053	37377	29208	36992
Q6P1M0	16764	30046	46601	19544	29978	34970	20688	58663
Q6P2C8	0	0	0	21069	0	0	0	0
Q6P2Q9	6708199	6734510	7098955	7236185	3872977	4969265	5972914	7986454
Q6PD62	86594	83724	22266	24217	21488	5905	9418	12207
Q6PGN9	0	0	21339	11319	0	18622	0	0
Q6PI48	227933	226711	218725	136438	361292	542433	227975	220826
Q6PL18	34076	62569	55504	64323	57270	28272	64454	75494
Q6Q4G3	0	0	1086157	0	5286200	713129	2067994	700125
Q6UB35	169524	126922	176544	344638	309401	199104	405042	298716
Q6UW68	37562	0	0	0	52041	16704	11702	42327

Q6UXN9	339025	342022	258259	114838	140856	79999	161569	174038
Q6W5P4	6825	10196	6116	5903	0	2881	5530	1151
Q6ZRP7	45108	42727	34286	71828	47768	41662	32286	42255
Q71DI3	741611	1376429	2080905	3226663	496841	1511148	3198160	719995
Q71UM5	614204	252824	264221	180410	321066	731480	782960	558247
Q7KZ85	9906	17681	22139	15339	23162	3629	15357	5786
Q7KZN9	19803	35543	36692	15793	7194	16591	20822	10080
Q7L014	135164	135165	70972	53178	0	1811302	147941	204200
Q7LOY3	332533	294453	350805	375478	290363	356009	489032	288747
Q7L1Q6	34866	34843	29406	36371	13822	27957	47849	18554
Q7LGA3	0	0	0	0	0	11732	17363	16125
Q7RTV0	1589854	1589867	1646827	648996	441200	776813	1190941	759655
Q7Z2W9	45235	55572	0	0	55669	70383	64040	58396
Q7Z3B4	211073	256319	298751	387674	255451	197266	258231	268068
Q7Z3K3	378073	397984	447516	245158	278732	432083	448226	640809
Q7Z417	142879	142881	151764	102401	117520	144830	0	0
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Q7Z5K2	131099	90542	97451	109763	120661	92666	98897	96953
Q7Z5L9	10608	0	0	0	0	1122	8495	0
Q7Z7H8	87594	102691	72765	107528	50988	46175	105126	22292
Q7Z7K6	36288	40860	64855	57504	124858	52038	48972	54121
Q86SF2	23837	48522	50412	67480	25531	31681	27186	49800
Q86SX6	688452	688458	527086	200047	2484800	1463948	947658	477057
Q86TG7	79453	79454	0	0	0	0	81165	64099
Q86U38	51334	30919	33401	52984	155756	54380	106743	133583
Q86U42	1449967	1449979	1990783	736221	2086300	1402185	896369	689229
Q86U86	20896	30521	9815	59739	24496	8413	37057	4294
Q86UE4	104141	43560	88199	94922	92813	241661	147724	50691
Q86UL3	15355	10048	7786	5275	21144	18218	45355	43135
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Q86UR5	29217	27115	26632	21903	19431	17410	24670	9498
Q86UY6	0	0	0	10162	58555	0	0	0
Q86V48	8588	0	0	0	4998	5765	52503	3548
Q86V81	12393954	12427511	4231877	2069801	1458104	10040476	8753622	6990183
Q86VM9	549793	549798	534937	337122	0	453696	532032	451240
Q86VU5	53175	79212	13103	69435	3614	63847	66065	6966
Q86W42	756553	743049	481173	486859	526071	1020758	730347	643564
Q86WB0	0	0	2038	1869	0	1079	0	0
Q86XP3	336575	336578	0	0	115010	419028	37798	49951
Q86YN1	13869	24311	22041	41182	4757	7986	13086	13757
Q8IVL5	113132	110318	113626	59423	48262	142973	149437	106940
Q8IVT2	122824	69415	147741	93996	114224	107682	99615	50541
Q8IWA0	311554	378665	389864	255240	380834	213546	238317	285661
Q8IWA4	21810	76948	30337	55577	14543	52177	53401	70562
Q8IWS0	5641	0	11972	0	6951	33665	25995	42392
Q8IWX8	449352	385410	581186	784138	418476	546856	743652	761870
Q8IX90	35927681	35667998	19723626	10735725	21634153	33792343	14400661	11656916
Q8IXI1	289952	301489	332953	388535	187158	477951	367628	324855
Q8IXJ6	0	0	0	0	2477	2322	2212	2521

Q8IXM3	43035	43035	112806	0	130950	12889	102554	147599
Q8IY17	0	2615	1634	2246	0	916	3139	650
Q8IY37	47508	46957	54523	51312	58110	41207	39999	52001
Q8IY57	250836	250839	0	0	0	0	10617	0
Q8IY81	1900315	2378606	1951022	1689482	1791357	1212458	1606454	2897810
Q8IYB3	619806	615675	591433	1022084	159889	203861	351222	451480
Q8IYB8	114409	115947	153564	109888	80197	106844	113892	121275
Q8IYL3	212682	212683	298160	119912	154767	186069	117521	69739
Q8IYS2	0	16566	20621	16853	16174	14325	23612	13032
Q8IYU8	21435	42699	37684	32640	14323	23396	24638	26036
Q8IZT6	0	0	0	0	2854	2720	1448	3380
Q8N108	120617	120618	32014	0	0	128516	89676	163611
Q8N183	83228	67897	60489	107227	44536	73269	77365	10435
Q8N1F7	2251730	2297542	2988722	2869494	2062665	2839420	2205804	2863890
Q8N1V2	0	0	0	0	28047	0	0	0
Q8N201	51128	72767	63148	71419	58110	36898	66297	42164
Q8N2F6	96798	66005	29590	46161	54874	52080	69188	54997
Q8N2U0	45165	35441	59457	63878	32729	52347	42493	64881
Q8N490	29469	0	0	0	7076	41391	10302	8170
Q8N4Q0	0	0	0	0	0	25629	0	33251
Q8N4Q1	244541	244543	564567	370334	1711100	725221	413851	179743
Q8N556	66745	101478	59143	86180	56285	60368	78456	58483
Q8N568	1180	1209	1249	0	0	1130	1930	1128
Q8N766	3327	0	108665	117785	1592	16031	67161	55819
Q8N766	300553	329353	266727	424623	186607	354066	434493	468835
Q8N8A6	158667	95557	108694	186497	163429	164866	104081	180646
Q8N8R3	10272	18591	19188	19230	3291	15832	19866	10106
Q8NAV1	23555	33359	33428	0	53958	45752	30464	41657
Q8NBJ5	155535	171744	161748	153725	765920	396942	113168	156995
Q8NBN7	36822	19059	22736	5724	27399	28521	10799	15069
Q8NBS9	3017099	2903515	3953447	6199002	30395394	4766397	6115809	5043314
Q8NBSX0	342311	352546	439099	295665	156577	396148	515647	317042
Q8NC51	4624399	4566107	2109087	2742482	3141141	5454417	3084086	1116888
Q8NC60	14186	14682	21537	37996	0	8790	12641	0
Q8NCW5	309007	309010	121791	0	1322300	229693	347618	232470
Q8NDF8	139257	139258	152761	93758	42766	62458	60717	56443
Q8NDZ6	0	0	22645	17574	0	13705	24683	12722
Q8NE71	1037726	855747	600108	296862	250793	638480	718152	453518
Q8NE86	247939	192473	211537	103094	22583	223385	261361	165385
Q8NEJ9	61176	79029	71784	155303	62684	62876	60636	69002
Q8NEW0	23234	32473	39172	0	42775	104308	73046	81949
Q8NF37	122885	204657	328642	288587	136729	353130	444201	368160
Q8NFC6	156402	156404	121349	79743	96425	122063	55284	0
Q8NFBH3	317871	284702	279166	338954	28206	99826	255907	182144
Q8NFBH4	180165	240441	195647	174760	74095	203895	208445	291516
Q8NFBH5	185322	131510	94658	284053	227462	203375	179869	118738
Q8NFBQ8	0	29461	0	33930	0	28703	34188	27551
Q8NFBV4	0	0	0	0	257350	184487	0	0
Q8NHH9	34606	23402	32737	29857	17788	14058	47605	74100

Q8NHP8	37498	37499	79663	0	188530	87791	36101	0
Q8NI27	1094765	1193621	1264012	704700	452088	853761	968415	1095963
Q8NI36	850769	882853	538543	704521	838131	1046432	625925	1078500
Q8TAE8	28303	28304	0	0	0	46477	158143	92474
Q8TAT6	24388	24388	0	0	0	0	5105	8990
Q8TB36	44765	30899	39774	34150	41429	42043	23972	34827
Q8TB61	28113	0	0	0	8478	17764	11452	18323
Q8TC12	266134	143097	229692	351117	154889	313487	347805	425776
Q8TCJ2	619570	633219	631916	398544	267812	640240	457363	828274
Q8TCS8	1561089	1564130	1484320	1064677	3785083	2194400	1937435	1314446
Q8TDD1	379466	328518	336494	282818	393039	268526	525099	909694
Q8TDI0	18166	23073	0	0	0	0	0	16570
Q8TDN6	2122919	1733364	1235859	1195154	1298926	1536047	2317428	5037868
Q8TDZ2	271833	364783	581003	370312	228428	475800	468380	422834
Q8TEM1	1755877	2002088	2340206	1787170	1604248	2156557	1892645	2026895
Q8TEQ6	219241	231102	76718	62565	58787	238178	124325	178589
Q8WUK0	6408	7247	7449	9481	518	4359	18108	8995
Q8WUM4	6663	10240	7530	5303	6333	5931	17071	4745
Q8WUZ0	36063	26450	43294	42430	146832	259180	183647	153292
Q8WVC2	4996946	4856545	3865925	2804198	3249039	4326525	5281926	3585247
Q8WVM0	51229	59461	78910	73395	67558	49887	61865	60136
Q8WVM7	5731	9516	24107	44410	11474	6114	16803	3934
Q8WVM8	100696	16254	86328	138568	51137	79795	103438	55403
Q8WW59	470929	470933	193568	264605	2238300	482961	262965	339627
Q8WWC4	95931	79360	47743	66389	57045	148794	122545	102143
Q8WWH4	0	0	12057	0	412	10945	23085	8516
Q8WWQ0	950403	957857	1292419	842971	339370	471588	975102	1150621
Q8WXA9	7297	44576	8780	10493	15532	43708	5848	48531
Q8WXF1	147928	142798	222879	178208	131087	123528	103929	159470
Q8WXH0	60557	35849	44355	63484	40152	34625	29866	11279
Q8WXI9	1570978	1581106	847110	806035	831714	2556492	948914	1119814
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Q92466	696978	696984	625396	416186	97361	487154	485565	285834
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Q92520	68815	61089	49267	159816	44737	57884	64974	32915
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Q92878	196590	196591	108491	0	0	96176	44733	189286
Q92879	438655	456132	111963	90280	162830	224415	277176	285406
Q92890	11907	11907	0	0	0	0	0	0
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Q92922	1515672	1625648	1224643	1130503	493399	826678	1707193	1751598
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Q969F1	0	0	0	0	0	0	0	16386
Q969G3	150260	124263	4597714	3613166	714824	412561	74377	419521
Q969H8	1211809	1290840	1328215	636567	2637398	1177494	1594542	1093634
Q969M7	3678	0	0	0	1267	2656	0	1911
Q969N2	18755	26446	76237	63014	7256	49509	58807	44869
Q969Q0	1438392	1438404	1889507	1030942	0	944246	1650520	1372800
Q969S3	23935	29144	34278	26918	15904	14002	34860	16788
Q969T3	0	0	0	0	5424	0	0	0
Q969X6	451920	476602	263966	280502	229816	535389	397106	348801
Q969Z0	325104	433387	476480	447223	270911	512817	816265	573742
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Q96A33	291498	273165	351180	264126	141140	374361	346693	500785
Q96A72	503498	932599	589428	1038474	705090	1003153	654576	900992
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Q96AG4	1961956	2585832	1672623	3409326	1032997	2171614	2191808	1546796
Q96AY3	1116247	1149209	837471	659063	2345045	1413605	989187	663210
Q96BR5	124184	124186	302521	302468	3299000	623451	232925	75500
Q96BW9	130200	151022	178039	233910	39015	144263	136227	142519
Q96C01	48938	48938	38129	0	799870	430878	40757	8796
Q96C36	158918	156498	42075	43165	54429	351485	253588	160862
Q96CM3	5439	5386	7359	0	3040	3601	7510	4536
Q96CM8	1962932	1962949	2033469	2047684	7243800	2713336	2568782	2280254
Q96CS3	466289	474914	610216	429681	301987	536442	653594	637819
Q96CT7	0	0	200974	0	0	165082	192169	0
Q96D15	0	0	0	0	291090	6887	22224	32723
Q96D53	2862	6456	2716	6975	721	3850	11127	1268
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Q96DV4	64421	63923	79712	26898	63114	63046	64149	0
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Q96EE3	80123	71318	169115	86464	45167	130900	209998	394388
Q96EH3	18337	38054	5912	6752	8638	18499	53677	23716
Q96EL3	306678	306681	0	0	227790	0	694800	204850
Q96EP5	1756843	1756858	896863	318831	438150	1548936	193753	142907
Q96ER9	63852	27905	23889	29507	40471	55420	49758	58022
Q96EY1	305470	179009	202974	207774	165436	323066	353408	194687
Q96EY7	74840	75474	51758	87536	66490	94362	107376	86881
Q96FV9	379568	439501	566169	413796	215462	741047	392539	519995
Q96FX7	3346	0	3457	2979	0	1353	0	1295
Q96GK7	0	0	0	0	602590	0	0	0
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Q96GQ7	270382	552133	333573	436892	473989	498177	598073	699114

Q96HA1	42195	42195	0	0	0	0	0	0
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Q96I63	392728	422802	340560	209065	89098	357119	405769	410870
Q96I99	85615	85615	0	41765	882440	88401	225484	74173
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Q96IX5	290082	236511	267734	170933	193809	329071	279403	367589
Q96IZ0	228138	228140	126641	94292	133710	50979	43278	26996
Q96J01	166170	166172	0	0	0	0	0	47329
Q96JM3	0	0	0	0	63572	100516	0	0
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Q96M27	8844	13503	0	11760	3535	25530	14850	8422
Q96MG7	23289	22464	0	0	738	555	470	14438
Q96MU7	3555	0	0	0	3273	1893	1948	2169
Q96N64	0	0	0	0	0	0	0	0
Q96N66	260070	210054	413314	344663	157436	289088	306374	240111
Q96NC0	221956	221958	98392	0	84505	340454	107621	110126
Q96ND0	0	0	0	2202	821	7732	9937	0
Q96P11	0	0	0	0	94148	0	54772	0
Q96PK6	9723326	9828141	11509170	4606762	1549571	878316	6278037	6197193
Q96PU8	513558	513563	209087	109697	0	169416	94648	86545
Q96QC0	0	0	10513	0	7757	0	4535	0
Q96QR8	28814	28815	0	0	9407	0	4593	30465
Q96QV6	0	0	0	0	0	0	0	0
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Q96S52	125139	188457	165607	196617	99881	119174	148673	134025
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Q96SK2	82908	74785	98673	91005	75022	74879	172536	93403
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Q96SY0	3695	0	7642	18996	9887	6003	8609	2354
Q96T52	0	33175	48738	30354	0	0	0	0
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Q96T60	347525	354320	224556	126397	3543	315527	152555	186101
Q96TA1	30291	21749	30437	23727	7661	17737	12028	8978
Q99417	84634	84634	211372	165250	480800	248578	161200	110520
Q99439	0	0	0	0	0	85672	0	0
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Q99575	128152	83981	0	0	0	147982	66942	76853
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Q99720	157370	183629	195953	279443	129855	144100	194413	202911
Q99797	15920	15920	0	0	94338	16540	20373	0
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Q9BQ69	776590	775378	430538	184320	648390	659857	651895	615647
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Q9BRX2	13426	16706	6094	0	39429	5791	2908	3365
Q9BS26	57747	71772	0	0	4131500	1480944	55721	7428
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Q9BSF4	33145	53940	50978	66988	31010	65426	47289	52065
Q9BSH4	45775	14355	40215	23843	20499	60711	89004	76194
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Q9BW19	68548	43251	0	0	57954	72722	63946	92011
Q9BW60	129841	94491	95584	131900	46429	131642	154105	117657
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Q9BWQ6	33952	46584	0	29310	15366	22534	12955	0
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Q9BXK1	57479	53776	50243	0	0	83184	73618	26677
Q9BXS6	466271	466275	292489	146548	122820	103149	93215	42674
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Q9BYD2	37650	46968	41120	101939	66616	136104	101311	65907
Q9BYD3	304185	466616	442199	515237	303888	510770	410496	345663
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Q9BZJ0	108277	108278	190403	187296	1196	160801	140219	148455
Q9BZK7	78266	87423	59067	72689	56175	72364	38079	29801
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Q9H0U9	0	0	0	0	0	0	0	6233
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Q9H2U2	104033	122013	91109	67128	2667	97006	174237	47372
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Q9H4I3	16649	14404	25909	13541	0	12299	17259	6795
Q9H4I9	0	1714	862	1357	0	424	3509	431
Q9H4L4	50531	92989	38381	60427	95056	31551	47292	23480
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Q9H6F5	2801108	2787443	3309297	1952098	935266	3498069	4557539	1069335
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Q9H8H2	126121	145463	33961	157502	89026	0	110387	106264
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Q9H9B4	2386654	2811826	2718364	2854593	2094548	2898896	3084210	2440664
Q9H9F9	0	1313	690	2824	0	0	0	0
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Q9H9Y2	20197	62249	85562	74188	43460	119864	72369	106835
Q9H9Y6	0	0	0	0	12887	4811	21435	30102
Q9HA47	105226429	104944172	78064254	45886241	19180420	95334571	64222252	73816339
Q9HAT2	9011761	9342689	6100354	6566649	21456739	8904456	11485582	9292058
Q9HAV0	9255	15655	23862	6925	0	20413	30087	15693
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Q9HAV7	1840549	1840565	2314676	3480712	16369000	3077021	3581110	1724060
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Q9HCN8	0	0	0	0	0	0	16084	0
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Q9HD45	94817	60565	136927	0	54760	115413	153072	206497
Q9NP72	99134	110462	161828	170560	66270	183985	170285	283103
Q9NP81	365680	357974	385656	357998	1459768	1136969	967722	670384
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Q9NPE3	0	0	0	183173	0	287546	0	0
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Q9NUJ1	771269	771276	588032	415290	2951100	1043756	886963	441660
Q9NUU6	3381	7166	26412	6712	0	20983	23527	11986
Q9NV31	197456	228322	118630	137822	110125	118869	203544	217013
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Q9NVM6	18809	18809	0	0	24307	0	0	0
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Q9NVP1	3039170	3140639	2611044	1870568	1408961	2522275	2267646	2861711
Q9NVV4	40841	58403	61087	75996	65216	48021	48820	0
Q9NW13	442520	676799	911968	47646	98570	392174	547101	626181
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Q9NWT1	441948	454324	1109210	1101067	24331	391943	869988	798975
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Q9NX63	738849	266428	33038	86030	235462	876632	844989	580787
Q9NXF1	245085	322415	359043	345266	363313	268748	252817	324247
Q9NXV6	575251	554753	775727	505994	374578	867283	564126	414545
Q9NY93	206088	109470	151084	219741	312211	224818	226718	209881
Q9NYB0	154624	154625	316420	171620	100610	635318	0	154557
Q9NYF8	2320342	2320362	2691548	3470758	710900	1688397	2063794	1530310
Q9NYH9	79578	138404	23698	49389	147155	118843	116947	220106
Q9NYJ1	739480	739487	449798	421063	5079700	541209	438756	205861
Q9NYL9	11455	12913	9573	13448	9255	8740	23168	2922
Q9NYP7	156951	207368	101190	162768	43015	92853	111728	117854
Q9NYY1	0	0	0	0	0	6982	0	5183
Q9NZ01	845492	762268	805841	470074	679083	1001488	1061218	904125
Q9NZ08	0	0	0	0	175970	0	0	0
Q9NZ45	414190	584483	246388	176227	377271	706849	462599	358806
Q9NZ63	86131	86132	0	0	0	0	88254	74913
Q9NZ71	41095	0	0	0	21004	37297	26001	30336
Q9NZJ6	0	0	0	0	0	22661	48212	35876
Q9NZW5	15863	15246	10958	10677	2854	7813	26658	5469
Q9P035	287079	274196	369587	545263	271789	372488	391735	487691
Q9P0I2	59646	63888	97284	52862	44133	23322	54593	19165
Q9P0J0	355582	380185	295608	281370	228105	512227	257645	95578
Q9P0K7	8046	0	11026	13609	0	2942	0	4399
Q9P0L0	480544	512855	356622	759924	443001	523641	393553	190541
Q9P0S9	201806	248309	307551	453393	115843	253283	247247	270721
Q9P1Y6	3011	0	0	0	0	1762	2399	1814
Q9P258	4032718	4009955	3358655	1219309	1645964	4050377	1394270	826862
Q9P289	1893	2271	1109	0	0	0	2841	665
Q9P2E9	2198504	2057918	2176816	1530674	1134701	2299481	3005489	2462174
Q9P2I0	11613	13238	55383	24978	2473	9225	22358	33407
Q9P2J5	110094	110095	0	0	0	0	50044	25085
Q9P2M1	20988	20281	25249	9739	8465	37412	30005	12392
Q9P2N5	822735	827789	842888	489332	114681	752560	588808	367496
Q9UBC2	123498	123500	79861	0	0	0	76339	0
Q9UBD5	1200	1964	2297	3021	996	1942	5186	1223
Q9UBF2	0	0	2554	0	0	0	0	0
Q9UBG0	7563	0	18038	0	1928	22103	33877	23931
Q9UBH6	21032	0	30669	16675	21568	9565	17666	12466
Q9UBI6	0	0	0	0	20895	94504	0	0
Q9UBQ7	0	0	0	0	374060	329597	17054	11997
Q9UBR2	306469	338273	1010177	990963	12471088	2786184	428280	454050
Q9UBS4	315457	361662	219430	98219	625833	413285	270277	568869
Q9UBU8	79527	87084	183022	113727	12250	358805	45028	20871
Q9UBU9	177717	177718	152994	129514	0	161460	173277	219772
Q9UBV2	21675	35367	51426	56758	30030	23699	24790	40970
Q9UBX3	23156	24719	67426	28101	0	107788	75685	86678
Q9UDT6	8489478	8489550	8786314	10040085	127780	7451688	6669159	5619577
Q9UDY4	0	25591	29492	27095	18957	9947	10503	9503

Q9UG63	45289	19732	45132	0	141645	79597	70021	92495
Q9UGN4	8055	0	16611	0	14552	8069	11240	3551
Q9UH62	49810	52312	77615	52417	16956	69686	70511	64077
Q9UH99	137213	151898	238492	219920	59589	102549	169012	158629
Q9UHA3	11349	30558	51244	41630	0	56305	63236	34284
Q9UHB6	610458	487960	197831	79673	308713	462132	179051	158291
Q9UHB9	7453	0	0	4694	15970	4777	11216	4390
Q9UHG3	388283	383842	417180	408014	262299	454222	376173	479012
Q9UHI6	117650	40237	150760	135487	28504	27540	31104	36304
Q9UHL4	98814	98815	229107	0	1486600	351903	128042	97609
Q9UHP7	0	1078	1454	1860	0	0	0	736
Q9UHR4	79325	65159	95685	76492	11825	86286	48655	45997
Q9UHX1	811979	811986	688611	411873	566670	1381390	603029	352260
Q9UI09	147597	176558	0	89577	75950	23146	54362	71457
Q9UI30	232373	232375	269649	240451	671020	81744	154005	208269
Q9UIG0	697766	709031	1354933	1397307	1240866	982789	1254794	1085367
Q9UII2	62046	62046	85607	177888	480330	67883	149117	29302
Q9UIJ7	217297	217299	144343	103559	407190	260948	272853	161195
Q9UJQ7	34939	45811	20136	20491	0	28313	24727	0
Q9UJS0	3412635	3192714	3535000	2938068	2005348	3807445	2982986	3548878
Q9UJX3	160416	150983	156396	11456	4078	45058	58157	185170
Q9UJZ1	989756	1119351	1122619	1100820	507981	1003570	1157060	861010
Q9UK61	93372	106414	12504	114789	70368	95091	93596	77349
Q9UKD2	852359	863895	1284150	1082228	345349	1054957	1412151	1099726
Q9UKL0	433007	468458	488333	164316	77133	204143	269713	286650
Q9UKM9	4831671	4831712	3618390	4518190	120370	3403071	5458285	4989799
Q9UKN8	43143	45343	19156	71153	3903	10880	54742	56685
Q9UL15	17181	23166	34001	50351	19477	16579	14520	21622
Q9UL25	6918	0	27110	0	41399	14905	20003	21446
Q9ULE4	370059	359474	185377	0	369663	48472	43842	160729
Q9ULR0	176771	176773	0	0	0	0	0	0
Q9ULW0	95140	121440	174618	144588	353682	134504	143823	261251
Q9UMS4	13447240	13661571	8507218	10073917	4121428	11463584	13314222	10468661
Q9UMX5	0	0	0	0	428770	176745	0	0
Q9UNN8	245599	245602	0	0	0	0	231089	142938
Q9UNQ2	118768	146096	123805	178624	167927	138695	124218	133048
Q9UNX4	749872	866124	445451	524588	252945	290923	645625	917666
Q9UPR6	16659	13853	9562	19224	14233	9973	7305	0
Q9UPT8	56958	56959	0	0	17090	15909	29336	15536
Q9UPT9	0	0	2385	0	0	784	2914	832
Q9UPY5	59074	41173	84373	56998	27820	44402	64865	54985
Q9UQ35	4540145	4522563	3731656	1429264	1028436	3182925	1974999	1989872
Q9UQ80	9975440	9975525	12573934	4318790	5175900	11876251	7220676	5039539
Q9UQ90	2696	6445	5106	3035	1195	3032	3265	2242
Q9UQE7	5452569	5445407	6049850	4346059	3284312	4751978	4515889	6828692
Q9UQQ1	491052	656497	615468	517031	525738	675453	437511	362061
Q9Y221	198142	198144	101881	0	0	0	94923	85542
Q9Y224	0	0	0	9931	0	0	0	0
Q9Y262	471296	471300	95612	0	11692	67759	400513	308862

Q9Y265	872478	973634	1255516	1464496	1142616	793406	1066999	1197822
Q9Y276	158675	63744	109395	53436	43638	65759	56091	64500
Q9Y277	1518621	2076423	1945382	1590194	484635	2022404	2661497	2150098
Q9Y282	34260	55101	42922	53497	5488	84027	99901	121643
Q9Y285	609192	609197	306970	194851	49772	230286	673915	551404
Q9Y2A7	4670	8308	14645	0	0	10086	8692	7346
Q9Y2K3	157939	92799	7896	133227	0	0	0	0
Q9Y2P8	106325	100620	38038	91299	118862	124707	106260	96063
Q9Y2Q3	317025	317028	267064	159105	974480	830044	627218	275702
Q9Y2Q5	38759	38759	0	0	76786	0	0	38026
Q9Y2W1	12329113	12363728	7326124	9777186	2323711	8860673	15248884	11186026
Q9Y2X3	5727433	5591578	5915913	3780360	2972613	7344785	4760366	6713714
Q9Y2X9	8549	9389	12032	15590	10371	7181	9981	8507
Q9Y2Z4	131511	187958	220162	120804	44650	98955	269884	254579
Q9Y320	59922	52119	81248	98771	0	62394	72482	141702
Q9Y333	477535	477539	161534	0	446966	583719	409982	142719
Q9Y383	123600	138624	32487	96852	252150	57169	100690	129879
Q9Y399	46527	56198	70529	71006	73125	64152	113226	150503
Q9Y3B4	419199	417827	82165	156817	82406	438390	326200	170682
Q9Y3B9	0	0	58443	90133	78965	0	0	0
Q9Y3C6	110392	110393	0	0	0	0	0	0
Q9Y3C7	35083	35084	0	0	0	27740	36387	38410
Q9Y3D6	111846	95180	73126	123057	35960	99365	95309	127598
Q9Y3D9	46337	74838	42582	79056	0	68433	60149	45567
Q9Y3E5	54829	71209	86055	94183	63783	102841	82121	49214
Q9Y3L5	90829	74089	63607	30609	61201	114019	78016	73891
Q9Y3Q8	763342	901774	520514	3859273	714490	562295	375043	2408368
Q9Y3T9	157377	114702	99680	65593	186109	214053	189650	215176
Q9Y3U8	158771	143796	0	1815	66289	288610	161631	112633
Q9Y3Y2	958236	941095	1123783	724310	121978	935454	1263358	572227
Q9Y4C8	149027	154293	142676	2545	58908	20714	151092	204139
Q9Y4E1	2260	3717	2756	0	0	2093	5475	34045
Q9Y4W2	351836	419743	370097	326462	446955	365341	359840	418062
Q9Y4W6	1095034	1179761	1010146	762614	416613	1174809	934433	1022599
Q9Y512	171219	408913	771778	385235	110307	714100	659520	772200
Q9Y584	55509	52006	45478	52062	37801	65592	72253	68966
Q9Y5B9	2872392	2890186	3276855	2035573	917007	1721091	3632730	2782918
Q9Y5J7	0	0	0	0	1103800	457391	0	0
Q9Y5L4	180738	180739	0	0	629380	0	0	0
Q9Y5M8	326564	329958	188933	425807	301804	461577	425803	797136
Q9Y5Q9	14219	10787	10806	12985	14937	3683	8362	10771
Q9Y5S9	2492771	2504665	3490134	3614109	3098784	4610143	5501300	3886964
Q9Y5U8	43876	64929	68917	26751	0	50522	94189	34690
Q9Y5W7	1660574	1660588	784188	419802	0	1790394	1107794	1504703
Q9Y5Z9	0	0	7650	5701	0	6548	13110	8622
Q9Y666	116329	92884	73928	51265	77167	120846	112077	80322
Q9Y678	269850	284739	62651	20435	7503	58966	83727	245963
Q9Y679	44197	42305	102473	34825	629	87733	130475	102383
Q9Y697	402156	347216	259575	172890	664162	424623	302511	242278

Q9Y6C9	954420	1277902	1235275	872635	577981	1657028	1548722	1073514
Q9Y6I9	19182	0	0	0	12564	0	13025	0
Q9Y6J9	0	0	9417	13572	0	0	9515	0
Q9Y6K0	0	0	0	0	0	0	4479	0
Q9Y6M0	100395	67865	65026	58978	101695	115063	86917	119825
Q9Y6N1	10008	19864	19908	15160	5157	25683	18426	44857
X1WI28	1093522	1096514	716461	1068417	626231	943602	1107434	936566
X6R2L4	525753	446256	428705	531739	474331	464699	539717	640460
X6R9L0	20157	28324	31007	24978	11647	11053	21422	18801
X6RAC9	569301	569306	708587	173123	130640	162257	92812	34221
X6RAY8	116391	116392	132032	102799	0	208339	190797	131498
X6RBL6	0	59658	76861	92533	57855	35570	39017	30912
X6RGJ2	1691628	1691643	1925999	1663582	99382	763760	1173248	1300637
X6RJP6	1016711	987254	364295	365917	438900	738363	580056	389143
X6RK96	5323	0	0	10621	9391	6275	21782	0
X6RLV5	45125297	45901607	44575046	41249590	12346295	43469626	54338233	54662398

Data S2 | Full list of NUC proteins contain 'transcription' as keywords (shown as red and bold with underline) in their BKL description.

Gene symbol	Protein description	BKL description	p-value (Student's t-test, N = 4)	Fold change (AuRF / Vehicle)	Regulation
<i>GNA14</i>	GNA14 Guanine nucleotide-binding protein subunit alpha-14	Guanine nucleotide binding protein alpha 14; a phosphoinositide phospholipase C and a putative GTPase that acts in GPCR signaling; MAPK activation; cAMP biosynthesis; and inflammatory response; <u>regulates transcription</u> ; may play a role in immunity	0.02	0.60	DOWN
<i>PLN</i>	PLN Cardiac phospholamban	Phospholamban; a calcium channel regulator that regulates striated muscle and heart contraction; membrane repolarization; and <u>transcription</u> ; overexpressed in dilated cardiomyopathy; downregulated in heart failure and mvocardial ischemia	0.20	0.00	DOWN
<i>BRD7</i>	BRD7 Isoform 1 of Bromodomain-containing protein 7	Bromodomain containing 7; a <u>transcription regulator</u> and a component of the PBAF complex that inhibits G1-S progression; mediates protein recruitment; mRNA is increased in acute myeloid leukemia; promoter methylation correlates with nasopharyngeal neoplasm	0.27	0.56	DOWN
<i>NUP88</i>	NUP88 Nuclear pore complex protein Nup88	Nucleoporin 88kDa; a <u>putative transporter that mediates transcription</u> ; nuclear pore complex assembly; and spindle polarity formation and chromosome segregation in mitosis; upregulated in Hodgkin's disease; colon; skin; breast and several neoplasms	0.11	1.44	UP
<i>PAWR</i>	PAWR PRKC apoptosis WT1 regulator protein	PRKC apoptosis WT1 regulator; a <u>transcriptional repressor</u> that acts in Ras signaling; apoptosis; and choline transport; inhibits protein kinase and cell migration; aberrantly expressed in bipolar disorder; schizophrenia; lung; and many other cancers	0.03	0.38	DOWN
<i>SNAPC1</i>	SNAPC1 snRNA-activating protein complex subunit 1	Small nuclear RNA activating complex polypeptide 1 43kDa; interacts with SNAP protein; <u>may play a role in transcription</u> from RNA polymerase III promoter and cell proliferation; gene is upregulated in head and neck squamous cell carcinoma	0.03	∞	UP
<i>TBL1XR1</i>	TBL1XR1 F-box-like/WD repeat-containing protein TBL1XR1	Transducin (beta)-like 1 X-linked receptor 1; a <u>transcriptional corepressor</u> that is involved in protein polyubiquitination; protein expression is upregulated in breast cancer; gene deletion correlates with acute lymphoblastic leukemia	0.04	0.66	DOWN
<i>GNB2</i>	GNB2 Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-2	Guanine nucleotide binding protein (G protein) beta polypeptide 2; interacts with PNPLA6 and SCA10; plays a role in erythropoietin signaling pathway; <u>inhibits transcription</u> and adenyl cyclase activity	0.15	0.81	DOWN
<i>TRIP11</i>	TRIP11 Thyroid receptor-interacting protein 11	Thyroid hormone receptor interactor 11; a microtubule binding protein that interacts with ARNT; acts in Golgi ribbon formation; <u>regulates transcription</u> and gamma tubulin binding to Golgi membrane; gene translocation correlates with acute myeloid leukemia	0.16	0.34	DOWN
<i>RBM14</i>	RBM4;RBM14;RBM14-RBM4 Isoform 1 of RNA-binding protein 4	RNA binding motif protein 14; a <u>transcription regulator</u> that may act in RNA splicing	0.08	1.55	UP
<i>DNAJB4</i>	DNAJB4 DnaJ homolog subfamily B member 4	DnaJ-like heat shock protein 40; a <u>regulator of transcription factor</u> that plays a role in JNK cascade and protein complex assembly; modulates cell cycle; cell proliferation; and cell migration; protein expression is upregulated in lung cancer	0.16	0.60	DOWN
<i>HSPA8</i>	HSPA8 Isoform 1 of Heat shock cognate 71 kDa protein	Heat shock 70kDa protein 8; a <u>transcriptional cofactor</u> that acts in protein folding and regulation of cell migration and differentiation; involved in response to oxidative stress and unfolded protein; upregulated in adenocarcinoma and Alzheimer disease	0.45	0.98	DOWN
<i>HNRNPF</i>	HNRNPF Heterogeneous nuclear ribonucleoprotein F	Heterogeneous nuclear ribonucleoprotein F; binds to nucleic acids; plays a role in RNA splicing; may <u>act in transcription initiation</u> ; aberrant expression is associated with stomach and several neoplasms	0.17	1.30	UP
<i>AFF4</i>	AFF4 Isoform 1 of AF4/FMR2 family member 4	AF4-FMR2 family member 4; a <u>putative transcription factor</u> that plays a role in spermatogenesis; corresponding gene is located to a chromosomal position associated with acute lymphoblastic leukemia	0.48	0.97	DOWN
<i>MYBBP1A</i>	MYBBP1A Isoform 1 of Myb-binding protein 1A	MYB binding protein (P160) 1a; a <u>transcriptional regulator</u> that plays a role in aerobic respiration; peptidyl-lysine dimethylation; and circadian rhythm; inhibits transcription and MAP kinase activity	0.47	1.01	UP
<i>SSRP1</i>	SSRP1 FACT complex subunit SSRP1	Structure specific recognition protein 1; a <u>transcription elongation regulator</u> that plays a role in antiapoptosis; cell growth; and embryonic development; upregulated in ovarian; breast; brain; and liver cancers	0.26	1.21	UP
<i>ILF2</i>	ILF2 Interleukin enhancer-binding factor 2	Interleukin enhancer binding factor 2 45kDa; a sequence-specific DNA binding <u>transcription factor</u> that enhances transcription from RNA polymerase II promoter and induces IL-2 biosynthesis; may act in meiosis; mRNA is upregulated in cervical cancer	0.16	0.84	DOWN
<i>WDR5</i>	WDR5 WD repeat-containing protein 5	WD repeat domain 5; a <u>transcriptional activator</u> that regulates apoptosis; osteoblast differentiation; and Wnt receptor signaling pathway; involved in proteoglycan biosynthetic process and positive regulation of histone H3-K4 methylation	0.11	0.56	DOWN
<i>PHF5A</i>	PHF5A PHD finger-like domain-containing protein 5A	Protein with very strong similarity to PHD finger protein 5A (rat Phf5a); which is a zinc finger protein that is a <u>coactivator of estrogen-stimulated transcription</u> ; member of the PHF5-like protein family	0.05	0.58	DOWN
<i>MRPL12</i>	SLC25A10 cDNA FLJ60124, highly similar to Mitochondrial dicarboxylate carrier	Mitochondrial ribosomal protein L12; binds to POLRMT and <u>stimulates transcription</u> from the mitochondrial promoters; may play a role in protein biosynthesis	0.35	0.88	DOWN
<i>NKRF</i>	NKRF NF-kappa-B-repressing factor	NF-kappaB repressing factor; a <u>transcriptional regulator</u> that plays a role in inflammatory response; inhibits DNA binding; NF-kappaB cascade; and interferon-beta and nitric oxide biosynthesis; downregulated in pancreatic adenocarcinomas	0.16	1.51	UP
<i>OGT</i>	OGT Isoform 3 of UDP-N-acetylglucosamine--peptide N-acetylglucosaminyltransferase 110 kDa subunit	O-linked N-acetylglucosamine transferase; catalyzes the addition of a single GlcNAc in O-glycosidic linkage to serine or threonine residues; <u>regulates transcription</u> ; inhibits vasoconstriction; gene map position correlates with nervous system diseases	0.25	1.81	UP
<i>PELP1</i>	PELP1 cDNA FLJ56414, highly similar to Homo sapiens proline-, glutamic acid-, leucine-rich protein 1 (PELP1), mRNA	Proline glutamate and leucine rich protein 1; a <u>transcriptional cofactor</u> that mediates estrogen receptor signaling; chromatin remodeling; antiapoptosis; and histone exchange; upregulated in salivary duct; ovarian; breast; and prostate cancers	0.35	1.07	UP
<i>DNAJC3</i>	DNAJC3 DnaJ homolog subfamily C member 3	DnaJ Hsp40 homolog subfamily-C member-3; a kinase inhibitor that acts in endoplasmic reticulum (ER) unfolded protein response; protein maturation; and endocrine pancreas development; inhibits ER stress; apoptosis; <u>transcription</u> ; and phosphorylation	0.01	0.60	DOWN

<i>UTP3</i>	UTP3 Something about silencing protein 10	Protein with strong similarity to mouse Utp3; which binds to transcription factor ; may play a role in brain development; contains a Sas10 C-terminal domain	0.32	0.81	DOWN
<i>TUBB2C</i>	TUBB2C Tubulin beta-2C chain	Tubulin beta 2; an Notch binding protein that plays a role in protein complex assembly; regulates transcription from RNA polymerase II promoter and Notch signaling pathway; upregulated in prostatic neoplasms	0.12	1.41	UP
<i>HEXIM1</i>	HEXIM1 Protein HEXIM1	Hexamethylene bis-acetamide inducible 1; a transcriptional repressor that regulates angiogenesis; apoptosis; and cell proliferation; acts in mammary gland; heart; and in utero embryonic development; mRNA is upregulated in early ovarian tumors	0.10	∞	UP
<i>TAF6L</i>	TAF6L TAF6-like RNA polymerase II p300/CBP-associated factor-associated factor 65 kDa subunit 6L	TAF6-like RNA polymerase II p300CBP-associated factor-associated factor 65kDa; a putative DNA binding protein; may play a role in chromatin remodeling and regulation of transcription from RNA polymerase II promoter	0.23	0.41	DOWN
<i>RCOR1</i>	RCOR1 REST corepressor 1	REST corepressor 1; a transcriptional repressor that is involved in protein stabilization and positive regulation of histone demethylation	0.05	0.54	DOWN
<i>RAP2C</i>	RAP2C Ras-related protein Rap-2c	RAP2C member of RAS oncogene family; a GTP binding protein that regulates transcription	0.18	1.26	UP
<i>LMNB2</i>	LMNB2 Lamin-B2	Lamin B2; may regulate transcription ; gene mutation correlates with lipotrophic diabetes mellitus; increased level of autoantibodies correlates with rheumatoid arthritis; systemic lupus erythematosus; and chronic hepatitis	0.16	1.27	UP
<i>ARMCX3</i>	ARMCX3 Armadillo repeat-containing X-linked protein 3	Protein with very strong similarity to armadillo repeat containing X-linked 3 (mouse Armcx3); which is a transcriptional activator that plays a role in protein targeting to mitochondrion; member of the DUF634 protein of unknown function family	0.43	0.95	DOWN
<i>MYO1C</i>	MYO1C Isoform 2 of Myosin-Ic	Myosin IC; an actin and a calmodulin binding microfilament motor protein that plays a role in transcription initiation ; vesicle-mediated transport; and sensory perception of sound; gene mutation is associated with hearing loss and multiple myeloma	0.41	1.08	UP
<i>SFPQ</i>	SFPQ Isoform Long of Splicing factor, proline- and glutamine-rich	Splicing factor proline-glutamine rich; a transcription regulator that acts in DNA strand renaturation; RNA splicing; progesterone receptor signaling; and regulation of protein localization to chromosome; stimulates apoptosis and translation	0.35	0.89	DOWN
<i>KLF16</i>	KLF16 Krueppel-like factor 16	Kruppel-like factor 16; a transcriptional repressor ; represses transcription of cytochrome P4501A1 (CYP1A1) gene	0.41	1.14	UP
<i>RPS3</i>	RPS3 40S ribosomal protein S3	Ribosomal protein S3; an endodeoxyribonuclease that regulates I-kappaB kinase - NF-kappaB cascade and transcription ; may act in cell proliferation and regulation of DNA repair; mRNA is upregulated in adenocarcinoma and several other neoplasms	0.08	0.65	DOWN
<i>IK</i>	IK Protein Red	IK cytokine downregulator of HLAII; plays a role in positive regulation of cell proliferation; may act in cell-cell signaling and transcription ; overexpressed in cutaneous T cell lymphomas	0.45	1.05	UP
<i>EIF3I</i>	EIF3I Eukaryotic translation initiation factor 3 subunit I	Eukaryotic translation initiation factor-3 subunit-I; a transcription corepressor that acts in regulation of TGF-beta receptor signaling pathway; cell cycle; and cell proliferation	0.30	0.63	DOWN
<i>RBM14</i>	RBM14;RBM14-RBM4 Isoform 1 of RNA-binding protein 14	RNA binding motif protein 14; a transcription regulator that may act in RNA splicing	0.02	0.42	DOWN
<i>MED21</i>	MED21 Mediator of RNA polymerase II transcription subunit 21	Mediator complex subunit 21; a transcription corepressor that phosphorylates the C-terminal domain of RNA polymerase II; component of RNA polymerase II holoenzyme	0.14	0.00	DOWN
<i>HDAC1</i>	HDAC1 Histone deacetylase 1	Histone deacetylase 1; a transcriptional regulator that mediates histone deacetylation; antiapoptosis; synapse maturation; and hippocampus development; increased protein expression correlates with pancreatic; hepatocellular and various neoplasms	0.17	0.81	DOWN
<i>SNW1</i>	SNW1 SNW domain-containing protein 1	SNW domain containing 1; a transcription coactivator that regulates alternative nuclear mRNA splicing and neuron differentiation; promotes transcription factor activity; inhibits translation and beta-catenin mediated Wnt receptor signaling	0.04	0.65	DOWN
<i>PCBP1</i>	PCBP1 Poly(rC)-binding protein 1	Poly(rC) binding protein 1; a transcription activator and a translation regulator that regulates mRNA splicing and its stability; upregulated in aortic stenosis and cardiomyopathy; downregulated in uterine cervical neoplasms; mRNA is decreased in hepatoma	0.25	0.87	DOWN
<i>GTF3C4</i>	GTF3C4 General transcription factor 3C polypeptide 4	General transcription factor IIIC polypeptide 4; a subunit of DNA-binding subcomplex TFIIIC2; displays histone H3-specific acetyltransferase activity; may recruit TFIIIB and RNA polymerase III to the pre-initiation complex	0.24	0.71	DOWN
<i>CBFB</i>	CBFB Isoform 1 of Core-binding factor subunit beta	Core binding factor beta; a transcription factor that acts in hemopoiesis; gene mutations cause acute myeloid leukemia associated with myelodysplastic syndrome; aberrant gene expression is associated with Duchenne muscular dystrophy and gastric cancer	0.09	∞	UP
<i>PHB</i>	PHB Prohibitin	Prohibitin; a transcription repressor that inhibits cell proliferation; regulates cell adhesion and mitochondrial fission; aberrantly expressed in Crohn disease; Parkinson disease; schizophrenia; psoriasis; and stomach; prostate; and several cancers	0.12	0.82	DOWN
<i>RHOG</i>	RHOG Rho-related GTP-binding protein RhoG	Ras homolog gene family member G; a transcriptional coactivator that mediates apoptosis; neurite outgrowth; and cell cycle; acts in endocytosis; Rho and JNK cascades; leukocyte migration; and cytoskeleton organization; upregulated in Tangier disease	0.15	1.39	UP
<i>DDX5</i>	DDX5 Probable ATP-dependent RNA helicase DDX5	DEAD box polypeptide 5; an ATP-dependent RNA helicase and a transcriptional activator that acts in Wnt receptor signaling; plays a role in and ribosome biogenesis and RNA splicing; upregulated in prostate; ovarian; and colorectal neoplasms	0.39	0.93	DOWN
<i>POLR2C</i>	POLR2C DNA-directed RNA polymerase II subunit RPB3	DNA directed RNA polymerase II polypeptide C; binds and activates transcription factor-4 mediated transcription ; may play a role in protein complex assembly and muscle development	0.25	1.28	UP
<i>HMGN3</i>	HMGN3 Isoform 1 of High mobility group nucleosome-binding domain-containing protein 3	High mobility group nucleosomal binding domain 3; a putative transcription coactivator that may play a role in chromatin remodeling and nucleosome disassembly	0.44	0.93	DOWN
<i>VRK1</i>	VRK1 Serine/threonine-protein kinase VRK1	Vaccinia related kinase 1; a transcriptional activator that acts in phosphorylation; JNK cascade; DNA replication; and spermatogenesis; mediates cell cycle; and proliferation; gene mutation causes spinal muscular atrophy with pontocerebellar hypoplasia	0.08	0.62	DOWN

<i>HCFC1</i>	HCFC1 Isoform 1 of Host cell factor 1	Host cell factor C1 (VP16-accessory protein); a transcriptional regulator that promotes cell proliferation; mediates DNA damage and apoptosis; G1/S transition; and cytokinesis; aberrant mRNA expression correlates with neoplasms	0.36	0.90	DOWN
<i>SLTM</i>	SLTM SAFB-like transcription modulator isoform b	Protein with strong similarity to SAFB-like transcription modulator (mouse Sltm); which mediates generalized down-regulation of mRNA synthesis and initiation of apoptosis; member of the SAP domain containing family; contains an RNA recognition motif	0.06	0.71	DOWN
<i>DEK</i>	DEK Protein DEK	DEK oncogene; a transcription factor that mediates apoptosis and cell aging; autoantibodies are upregulated in lupus erythematosus and arthritis; mRNA is aberrantly expressed in retinoblastoma and brain neoplasm; gene translocation causes myeloid leukemia	0.02	0.53	DOWN
<i>TAF15</i>	TAF15 Isoform Short of TATA-binding protein-associated factor 2N	TAF15 RNA polymerase II TATA box binding protein (TBP)-associated factor 68kDa; a RNA polymerase II transcription factor that stimulates transcription from RNA polymerase II promoter; gene translocation correlates with chondrosarcoma and acute leukemia	0.35	0.86	DOWN
<i>SART1</i>	SART1 U4/U6.U5 tri-snRNP-associated protein 1	Squamous cell carcinoma antigen recognized by T cells; a transcriptional activator that is essential for the recruitment of the tri-snRNP to the pre-spliceosome in the spliceosome assembly pathway; increased antibody correlates with atopic dermatitis	0.30	0.89	DOWN
<i>ACTB</i>	ACTB Actin, cytoplasmic 1	Actin beta; a cytoskeletal and nuclear protein that mediates actin cytoskeleton organization and stress fiber assembly; regulates transcription ; aberrantly expressed in Alzheimer disease; mRNA is upregulated in colonic and hepatocellular carcinomas	0.21	0.68	DOWN
<i>PCNA</i>	PCNA;PCNA-AS1 Proliferating cell nuclear antigen	Proliferating cell nuclear antigen; a transcriptional regulator that acts in cell proliferation and DNA replication and repair; aberrantly expressed in glioblastoma; melanoma; asthma; psoriasis; arteriosclerosis; and liver; lung; and various other cancers	0.00	0.25	DOWN
<i>PEG10</i>	PEG10 Isoform RF1/RF2 of Retrotransposon-derived protein PEG10	Paternally expressed 10; a putative transcription factor that acts in TGF-beta receptor signaling; apoptosis; embryonic placenta development; and fat cell differentiation; mRNA is aberrantly expressed in hepatocellular cancer and spontaneous miscarriages	0.19	1.54	UP
<i>SYMPK</i>	SYMPK Isoform 1 of Symplekin	Symplekin; a transcription regulator that mediates mRNA polyadenylation; cell growth and proliferation and microtubule polymerization; mediates gene expression; phosphatase activity; establishment of cell polarity; and spindle assembly	0.41	0.94	DOWN
<i>ELL</i>	ELL RNA polymerase II elongation factor ELL	Elongation factor RNA polymerase II; a transcriptional regulator that acts in mineralocorticoid receptor signaling pathway; apoptosis; and utero embryonic development; gene translocation correlates with acute myeloid leukemia	0.33	1.48	UP
<i>FKBP3</i>	FKBP3 Peptidyl-prolyl cis-trans isomerase FKBP3	FK506 binding protein 3 25kDa; rapamycin-selective DNA-binding nuclear immunophilin with peptidylprolyl cis-trans-isomerase activity; forms complex with histone deacetylases HDAC1 and HDAC2; interacts with transcription regulator YY1 ; and casein kinase II	0.38	0.83	DOWN
<i>RBM3</i>	RBM3 Putative RNA-binding protein 3	RNA binding motif protein 3; a transcriptional activator that regulates mRNA stability; antiapoptosis and phosphorylation of initiation factors; promotes translation; inhibits mitotic catastrophe; mRNA is downregulated in oropharyngeal neoplasms	0.14	0.45	DOWN
<i>BCAS2</i>	BCAS2 Pre-mRNA-splicing factor SPF27	Breast carcinoma amplified sequence 2; binds to estrogen and progesterone receptor; induces transcription factor activity and apoptosis; may act in RNA splicing; increased mRNA expression is associated with breast cancer	0.07	0.50	DOWN
<i>SF3B1</i>	SF3B1 Splicing factor 3B subunit 1	Splicing factor 3b subunit-1 155kDa; plays a role in mRNA splice site selection and splicing; acts in transcription inhibition ; apoptosis; and skeletal system development; upregulated in Huntington disease	0.04	0.64	DOWN
<i>ZBTB7B</i>	ZBTB7B Zinc finger and BTB domain-containing protein 7B	Zinc finger and BTB domain containing 7B; a transcriptional activator that regulates NK T cell differentiation; granzyme B and IL-2 production; and collagen biosynthesis	0.15	0.22	DOWN
<i>NIPBL</i>	NIPBL Isoform 2 of Nipped-B-like protein	Nipped-B homolog; a transcription repressor that inhibits mitotic cell cycle; acts in protein localization; may play a role in sister chromatid cohesion and regulation of embryonic development; gene mutations correlate with De Lane syndrome	0.24	1.27	UP
<i>NPM3</i>	NPM3 Nucleoplasmin-3	Nucleoplasmin 3; inhibits histone assembly activity of NPM1; and enhances transcription ; localized to the nucleus; member of the nucleoplasmin-nucleophosmin family	0.18	2.00	UP
<i>PHB2</i>	PHB2 Prohibitin-2	Prohibitin 2; a transcription corepressor that plays a role in estrogen receptor signaling pathway and mitotic spindle organization; mediates apoptosis; cell proliferation; and cell adhesion; increased mRNA expression correlates with breast neoplasms	0.50	1.00	UP
<i>CTCF</i>	CTCF Transcriptional repressor CTCF	CCCTC-binding factor; a transcription regulator and histone deacetylase that mediates chromatin remodeling; NF-kappaB cascade; and apoptosis; upregulated in breast cancer; abnormal transcription activity correlates with Beckwith-Wiedemann syndrome	0.45	0.97	DOWN
<i>PSIP1</i>	PSIP1 Isoform 1 of PC4 and SFRS1-interacting protein	PC4 and SFRS1 interacting protein 1; a transcription factor that acts in apoptosis; skeletal development; and inflammatory response; acts as an autoantigen in Vogt Kovanagi Harada disease and dermatitis; mRNA is upregulated in breast and bladder cancers	0.01	0.48	DOWN
<i>NME2P1</i>	Putative nucleoside diphosphate kinase	Protein with very strong similarity to nucleoside diphosphate kinase B (human NME2); which is a transcription factor and endodeoxyribonuclease that displays reduced expression in breast carcinoma cells; contains a nucleoside diphosphate kinase domain	0.09	0.00	DOWN
<i>TRIM25</i>	TRIM25 E3 ubiquitin/ISG15 ligase TRIM25	Tripartite motif-containing 25; an ubiquitin-protein ligase and estrogen receptor binding transcription cofactor that plays a role in cell proliferation and internal genitalia morphogenesis; downregulated in breast neoplasms	0.00	0.14	DOWN
<i>ERH</i>	ERH Enhancer of rudimentary homolog	Enhancer of rudimentary homolog; a putative transcription repressor that may play a role in pyrimidine base metabolic process and in the regulation of cell cycle	0.40	1.07	UP
<i>TMPO</i>	TMPO Isoform Beta of Lamina-associated polypeptide 2, isoforms beta/gamma	Thymopoietin; a structural constituent of nuclear pore that acts in DNA replication; transcription ; cell cycle; and cell proliferation; gene mutation is associated with dilated cardiomyopathy	0.01	0.67	DOWN

<i>DNMT1</i>	DNMT1 Isoform 1 of DNA (cytosine-5)-methyltransferase 1	DNA methyltransferase 1; a transcriptional repressor that acts in gene silencing; T cell activation; spermatogenesis; and female gamete generation; upregulated in familial adenomatous polyposis and kidney and several cancers	0.20	0.73	DOWN
<i>POLR2A</i>	POLR2A DNA-directed RNA polymerase II subunit RPB1	DNA-directed RNA polymerase II subunit RPB1; involved in transcription initiation and elongation ; plays a role in the cleavage and polyadenylation of mRNA; upregulated in systemic sclerosis	0.21	1.37	UP
<i>YBX1</i>	YBX1 Nuclease-sensitive element-binding protein 1	Y-box binding protein 1; a transcription factor that acts in DNA repair; spliceosome assembly; cell proliferation; and apoptosis; upregulated in anemia and breast and several other cancers; autoimmune antibody correlates with systemic sclerosis	0.19	1.76	UP
<i>EMD</i>	EMD Emerin	Emerin; a transcription regulator that acts in muscle development; cell cycle; and nuclear envelope reassemble; gene mutations are associated with dilated cardiomyopathy and Emery-Dreifuss muscular dystrophy	0.05	1.41	UP
<i>RRP1B</i>	RRP1B Isoform 2 of Ribosomal RNA processing protein 1 homolog B	Ribosomal RNA processing 1 homolog B; binds many nucleosome binding factors to potentially regulate transcription and chromatin structure; gene SNP correlates with metastasis susceptibility associated with breast cancer	0.38	0.90	DOWN
<i>UBE2I</i>	UBE2I SUMO-conjugating enzyme UBC9	Ubiquitin-conjugating enzyme E2I; a transcription regulator that acts in NF-kappaB cascade; cell proliferation; muscle differentiation; and triglyceride metabolism; upregulated in multiple myeloma and breast and lung cancers	0.35	1.53	UP
<i>TFB2M</i>	TFB2M Dimethyladenosine transferase 2, mitochondrial	Transcription factor B2 mitochondrial; interacts with mitochondrial RNA polymerase and activates transcription from mitochondrial promoters	0.43	0.95	DOWN
<i>HNRPDL</i>	HNRPDL Isoform 3 of Heterogeneous nuclear ribonucleoprotein D-like	Heterogeneous nuclear ribonucleoprotein D-like; binds to double-stranded and single stranded DNA; acts in mRNA transcription ; may play a role in nucleocytoplasmic transport	0.27	1.25	UP
<i>SPEN</i>	SPEN Msx2-interacting protein	Nuclear receptor transcription cofactor ; a retinoic acid receptor binding that plays a role in regulating Wnt receptor signaling pathway; cell growth; and transcription	0.35	1.37	UP
<i>ZNF622</i>	ZNF622 Zinc finger protein 622	Zinc finger-like protein 9; homodimeric transcription factor that binds human MYBL2 and enhances transcriptional activity; may enhance apoptosis induced by various extracellular signals; associates with human MELK and is a substrate of mouse Melk	0.10	0.71	DOWN
<i>H2AFY</i>	H2AFY Isoform 3 of Core histone macro-H2A.1	H2A histone family member Y; a transcription repressor that is involved in X chromosome inactivation; DNA packaging; regulates glucose tolerance and cell aging; upregulated in non-small-cell lung carcinoma and downregulated in breast neoplasms	0.40	1.04	UP
<i>EWSR1</i>	EWSR1 RNA-binding protein EWS isoform 4	Ewing sarcoma breakpoint region 1; a transcriptional coactivator that acts in mRNA splice site selection and G1 phase of mitotic cell cycle; regulates angiogenesis and apoptosis; genetic translocations are associated with Ewing sarcoma and several cancers	0.16	0.69	DOWN
<i>BAZ1B</i>	BAZ1B Isoform 1 of Tyrosine-protein kinase BAZ1B	Bromodomain adjacent to zinc finger domain 1B; a ligand for vitamin D receptor and a transcription coactivator that acts in DNA repair and regulation of cell cycle; gene mutations correlate with Williams syndrome and diabetes type-2	0.32	1.10	UP
<i>COBRA1</i>	COBRA1 Negative elongation factor B	Cofactor of BRCA1; a transcriptional regulator that acts in androgen and estrogen receptor signaling; chromatin assembly; RNA splicing; and embryonic development; upregulated in gastrointestinal neoplasms; gene expression downregulated in breast cancer	0.01	0.26	DOWN
<i>GATAD2B</i>	GATAD2B Transcriptional repressor p66-beta	GATA zinc finger domain containing 2B; a component of the MeCP1 complex that acts in methylation-dependent transcriptional repression	0.37	1.14	UP
<i>THRAP3</i>	THRAP3 Thyroid hormone receptor-associated protein 3	Thyroid hormone receptor associated protein 3; a transcriptional coactivator that binds to spliced mRNA; activates pre-mRNA splicing and nuclear mRNA degradation	0.37	0.90	DOWN
<i>SMARCC2</i>	SMARCC2 Isoform 2 of SWI/SNF complex subunit SMARCC2	Chromatin remodeling complex BAF170 subunit; a transcription coactivator that binds to HDAC2 and SMARCD1; involved in chromatin modification and protein stabilization; promotes the ATPase activity of SMARCA2 and SMARCA4	0.01	0.61	DOWN
<i>WDR82</i>	WDR82 WD repeat-containing protein 82	WD repeat domain 82; a component of Set1C-COMPASS complex and RNA polymerase binding transcription regulator that acts in histone H3-K4 trimethylation; binds to DNA adducts generated by platinum anticancer drugs; associates with numerous protein complexes	0.05	0.53	DOWN
<i>MACROD1</i>	MACROD1 MACRO domain-containing protein 1	MACRO domain containing 1; functions as a transcription coactivator for both the androgen receptor and estrogen alpha receptor; gene translocation and subsequent fusion with the RUNX1 gene correlates with monocytic leukemia	0.27	1.19	UP
<i>TSPYL1</i>	TSPYL1 TSPYL protein	TSPY-like 1; a putative transcription factor that acts in development of primary male sexual characteristics; may play a role in nucleosome assembly; gene mutation is associated with sudden infant death and gonadal dysgenesis	0.20	∞	UP
<i>ATAD2</i>	ATAD2 Isoform 1 of ATPase family AAA domain-containing protein 2	ATPase family AAA domain containing 2; an AAA+ ATPase that functions as a transcriptional coactivator for the androgen receptor; estrogen receptor alpha; and MYC; overexpressed in prostate cancers with high Gleason scores and aggressive breast cancers	0.43	1.04	UP
<i>SIN3A</i>	SIN3A Paired amphipathic helix protein Sin3a	SIN3 homolog A transcriptional regulator; a transcription corepressor that acts in histone deacetylation; cytotoxic T cell differentiation; apoptosis; and embryonic development; regulates cell cycle; mislocalization correlates with Huntington disease	0.42	0.93	DOWN
<i>EZH2</i>	EZH2 Isoform 3 of Histone-lysine N-methyltransferase EZH2	Enhancer of zeste homolog 2; a histone methyltransferase and transcription regulator that acts in gene silencing and embryonic development; aberrantly expressed in prostate; gastric; and various neoplasms; mRNA downregulation correlates with progeria	0.17	∞	UP
<i>HIST2H3A</i>	HIST2H3D;HIST2H3A;HIST2H3C Histone H3.2	Protein with very strong similarity to mouse Hist2h3c2; which is a transcriptional regulator that may play a role in nucleobase; nucleoside; nucleotide; and nucleic acid metabolism	0.33	0.80	DOWN
<i>MTA2</i>	MTA2 Metastasis-associated protein MTA2	Metastasis associated-1 family member 2; a histone deacetylase and transcriptional repressor that regulates apoptosis and T-cell activation; upregulated in invasive breast cancer; knockout of the mouse Mta2 causes lupus like autoimmune disease	0.22	0.88	DOWN

<i>HMGAI</i>	HMGAI Isoform HMG-Y of High mobility group protein HMG-I/HMG-Y	High mobility group AT-hook 1; a transcription regulator that acts in cell proliferation and DNA repair; upregulated in leiomyoma; gene is aberrantly expressed in lung; breast; and other various cancers; mouse Hmgal1 is associated with cardiac hypertrophy	0.25	0.77	DOWN
<i>HMGAI</i>	HMGAI Isoform HMG-I of High mobility group protein HMG-I/HMG-Y	High mobility group AT-hook 1; a transcription regulator that acts in cell proliferation and DNA repair; upregulated in leiomyoma; gene is aberrantly expressed in lung; breast; and other various cancers; mouse Hmgal1 is associated with cardiac hypertrophy	0.10	0.55	DOWN
<i>TFAP2A</i>	TFAP2A transcription factor AP-2-alpha isoform b	Transcription factor AP-2 alpha; a transcriptional regulator plays a role in organ development and sensory perception of sound; induces apoptosis; upregulated in dysplastic nevus syndrome; mRNA expression is decreased in skin and several other neoplasms	0.09	0.54	DOWN
<i>ZC3H4</i>	ZC3H4 Zinc finger CCCH domain-containing protein 4	Member of the zinc finger C-x8-C-x5-C-x3-H type (and similar) family; has a region of moderate similarity to a region of human ZC3H8; which is a specific transcriptional repressor of GATA3 and may regulate thymocyte homeostasis and T-cell differentiation	0.31	0.68	DOWN
<i>MTA1</i>	MTA1 Isoform Short of Metastasis-associated protein MTA1	Metastasis associated 1; a transcriptional regulator that forms NURD complex; acts in ER signaling; mammary gland branching; ubiquitination; and DSB-repair; upregulated in hepatocellular and prostate cancers; mRNA expression is increased in lung carcinoma	0.28	0.60	DOWN
<i>RBM39</i>	RBM39 Isoform 2 of RNA-binding protein 39	RNA binding motif protein 39; a transcription coactivator that plays a role in regulation of RNA splicing; increased expression correlates with the progression of invasive ductal breast carcinoma	0.20	0.89	DOWN
<i>SMARCC2</i>	SMARCC2 Isoform 1 of SWI/SNF complex subunit SMARCC2	Chromatin remodeling complex BAF170 subunit; a transcription coactivator that binds to HDAC2 and SMARCD1; involved in chromatin modification and protein stabilization; promotes the ATPase activity of SMARCA2 and SMARCA4	0.36	0.86	DOWN
<i>HNRNPK</i>	HNRNPK Isoform 1 of Heterogeneous nuclear ribonucleoprotein K	Heterogeneous nuclear ribonucleoprotein K; a transcription factor that inhibits nuclear mRNA splicing via spliceosome; acts in cell cycle checkpoint; T cell activation; and apoptosis; upregulated in head and neck; nasopharyngeal; and colorectal carcinoma	0.20	0.72	DOWN
<i>TMPO</i>	TMPO Lamina-associated polypeptide 2, isoform alpha	Thymopoietin; a structural constituent of nuclear pore that acts in DNA replication; transcription ; cell cycle; and cell proliferation; gene mutation is associated with dilated cardiomyopathy	0.27	1.13	UP
<i>HIST1H2AC</i>	HIST1H2AC Histone H2A type 1-C	Protein with very strong similarity to rat Hist3h2a; which is a phosphatase activator that acts in mRNA stabilization; may play a role in spermatogenesis; contains a histone-like transcription factor (CBF or NF-Y) and archaeal histone domain	0.30	1.22	UP
<i>BAZ1B</i>	BAZ1B Isoform 2 of Tyrosine-protein kinase BAZ1B	Bromodomain adjacent to zinc finger domain 1B; a ligand for vitamin D receptor and a transcription coactivator that acts in DNA repair and regulation of cell cycle; gene mutations correlate with Williams syndrome and diabetes type-2	0.48	0.97	DOWN
<i>PSMC4</i>	PSMC4 Isoform 2 of 26S protease regulatory subunit 6B	Proteasome (prosome; macropain) 26S subunit ATPase 4; a component of the 26S proteasome complex and a transcriptional corepressor that plays a role in embryonic development; may be involved in protein catabolism and RNA metabolism	0.11	0.22	DOWN
<i>NDNL2</i>	NDNL2 Melanoma-associated antigen G1	Protein with high similarity to mouse Ndn12; which is a transcriptional repressor that regulates cell proliferation and apoptosis; may be involved in brain development	0.19	0.35	DOWN
<i>ATP2B4</i>	ATP2B4 Isoform ZK of Plasma membrane calcium-transporting ATPase 4	ATPase Ca++ transporting plasma membrane 4; a transcription regulator that acts in Ca2+ homeostasis; cell proliferation; blood pressure; and sperm motility; downregulated in colon adenocarcinoma; knockout of the mouse Atp2b4 causes cardiac hypertrophy	0.10	0.77	DOWN
<i>POLR1C</i>	POLR1C Isoform 2 of DNA-directed RNA polymerases I and III subunit RPAC1	Polymerase (RNA) I polypeptide C 30kDa; a putative DNA-directed RNA polymerase that may play a role in transcription from RNA polymerase I promoter	0.05	0.60	DOWN
<i>HIST1H1B</i>	HIST1H1B Histone H1.5	H1 histone family member 5; binds to DNA; regulates cell cycle and transcription ; inhibits muscle cell differentiation; may play a role in chromatin silencing; DNA replication; and chromatin organization	0.10	0.67	DOWN
<i>ARMC10</i>	ARMC10 Isoform 3 of Armadillo repeat-containing protein 10	Armadillo repeat containing 10; a p53 binding protein that regulates transcription ; cell proliferation; and apoptosis; may regulate cellular processes; corresponding gene is upregulated in hepatocellular carcinoma	0.45	0.97	DOWN
<i>NFIC</i>	NFIC Isoform 3 of Nuclear factor 1 C-type	Nuclear factor I-C; induces RNA polymerase II mediated transcription ; regulates hedgehog; Wnt; TGFB; and PDGFA signaling; S phase of cell cycle; anagen; odontogenesis; and wound healing; aberrantly expressed in breast cancer and lymph node metastases	0.01	0.67	DOWN
<i>PSMA7</i>	PSMA7 Isoform 2 of Proteasome subunit alpha type-7	Proteasome subunit alpha type 7; interacts with RAB7 to mediate transport of late endosomes; activates transcription	0.09	∞	UP
<i>SON</i>	SON Isoform E of Protein SON	SON DNA binding protein; a transcriptional repressor that is involved in nuclear speck organization and regulation of cell cycle arrest and cell growth; may play a role in mRNA processing; acts as an antigen in astrocytoma	0.23	1.59	UP
<i>POLR2G</i>	POLR2G DNA-directed RNA polymerase II subunit RPB7	DNA directed RNA polymerase II polypeptide G; a putative DNA-directed RNA polymerase that acts in transcription and stabilization of transcribing polymerases in response to stress; upregulated in psoriatic skin disease and chronic fatigue syndrome	0.36	1.42	UP
<i>H3F3B</i>	H3F3A;H3F3B;H3F3AP6;H3F3AP4 Histone H3.3	H3 histone family 3B; plays a role in interferon mediated transcription ; may acts in DNA packaging; cell differentiation; and brain development	0.22	0.70	DOWN
<i>HMGB2</i>	HMGB2 High mobility group protein B2	High-mobility group box 2; a transcription factor that binds to and bends DNA; plays a role in DNA ligation; downregulated in osteoarthritis; acts as an autoantigen in juvenile idiopathic arthritis and autoimmune hepatitis	0.06	0.64	DOWN
<i>CSDA</i>	CSDA Isoform 2 of DNA-binding protein A	Cold shock domain protein A; a transcriptional regulator that plays a role in RNA splicing; embryogenesis; antiapoptosis; and VEGF signaling; inhibits endothelial cell proliferation; upregulated in hepatocellular carcinoma	0.40	1.13	UP
<i>HCFC1</i>	HCFC1 Isoform 2 of Host cell factor 1	Host cell factor C1 (VP16-accessory protein); a transcriptional regulator that promotes cell proliferation; mediates DNA damage and apoptosis; G1/S transition; and cytokinesis; aberrant mRNA expression correlates with neoplasms	0.16	0.73	DOWN

<i>ILF3</i>	ILF3 Isoform 5 of Interleukin enhancer-binding factor 3	Interleukin enhancer binding factor 3; a transcriptional regulator that acts in mRNA stabilization; chromatin remodeling; and immune response; regulates translation; cell division; and nuclear RNA export; upregulated in lung adenocarcinoma	0.33	1.15	UP
<i>SUPT7L</i>	SUPT7L Isoform 2 of STAGA complex 65 subunit gamma	SPTF-associated factor 65 gamma; acts in transcription activation ; chromatin modification and possibly DNA repair as part of the STAGA (human SUPT3H - TAF2G - GCN5L1 acetylase) complex; causes activation of cytotoxic T-lymphocytes in lung adenocarcinoma	0.45	0.94	DOWN
<i>ZNF207</i>	ZNF207 Isoform 2 of Zinc finger protein 207	Protein with low similarity to A. thaliana SUF4; which binds to DNA and a putative sequence-specific DNA binding transcription factor that regulates transcription; inhibits flower development; involved in response to phosphate starvation and auxin stimuli	0.22	0.74	DOWN
<i>HSPE1</i>	HSPE1 10 kDa heat shock protein, mitochondrial	Heat shock 10kDa protein 1; binds to chaperones; plays a role in protein folding; regulates cell differentiation and NF-kappaB transcription factor activity ; upregulated in prostatic and several other neoplasms	0.16	1.44	UP
<i>HNRNPD</i>	HNRNPD Isoform 3 of Heterogeneous nuclear ribonucleoprotein D0	Heterogeneous nuclear ribonucleoprotein D; a putative transcription activator that regulates mRNA stability; apoptosis; hypersensitivity; interleukin and IgE production; and immunity; deficiency of the mouse Hnrnpd causes dermatitis in mouse	0.43	0.96	DOWN
<i>UBTF</i>	UBTF Isoform UBF2 of Nucleolar transcription factor 1	Upstream binding transcription factor RNA polymerase I; a transcriptional activator that acts in chromosome decondensation; and regulation of cell proliferation and cell size; increased mRNA expression correlates with hepatocellular carcinoma	0.08	0.65	DOWN
<i>XRCC5</i>	XRCC5 X-ray repair cross-complementing protein 5	X-ray repair complementing defective repair in Chinese hamster cells 5; a transcription regulator that acts in DNA repair; telomere maintenance; cell adhesion; apoptosis; and immunity; aberrantly expressed in melanoma and several other cancers	0.01	0.62	DOWN
<i>SUB1</i>	SUB1 Activated RNA polymerase II transcriptional coactivator p15	SUB1 homolog; a chromatin-associated RNA polymerase III transcription factor that binds to core histones to induce chromatin condensation; regulates cell cycle progression; induces apoptosis and inhibits cyclin-dependent protein kinase activity	0.12	0.55	DOWN
<i>SMARCC1</i>	SMARCC1 SWI/SNF complex subunit SMARCC1	SWI-SNF complex 155 kDa subunit; an RNA polymerase II transcription factor that plays a role in chromatin remodeling and negative regulation of transcription	0.31	0.87	DOWN
<i>RNF20</i>	RNF20 E3 ubiquitin-protein ligase BRE1A	Ring finger protein 20; a nuclear ubiquitin protein ligase that regulates histone H3-K4 methylation; gene-specific transcription ; cell proliferation; cell migration; and cellular senescence	0.14	2.11	UP
<i>NCOA5</i>	NCOA5 Nuclear receptor coactivator 5	Nuclear receptor coactivator 5; a transcription cofactor that binds RVR (NR1D2); estrogen receptor alpha (ESR1); and estrogen receptor beta (ESR2); binds TIP30 (HTATIP2) to repress estrogen receptor alpha mediated c-myc transcription	0.17	2.46	UP
<i>POLR2E</i>	POLR2E DNA-directed RNA polymerases I, II, and III subunit RPABC1	Polymerase (RNA) II (DNA directed) polypeptide E 25kDa; interacts with transcription factor and inhibits transcription from RNA polymerase II promoter	0.48	0.98	DOWN
<i>TFB1M</i>	TFB1M Dimethyladenosine transferase 1, mitochondrial	Transcription factor B1 mitochondrial; catalyzes the transfer of a methyl group from S-adenosyl-L-methionine to a nucleoside residue in an rRNA molecule; may be involved in sensory perception of sound; gene polymorphism correlates with hearing loss	0.23	0.91	DOWN
<i>NOLC1</i>	NOLC1 Isoform Alpha of Nucleolar and coiled-body phosphoprotein 1	Nucleolar and coiled-body phosphoprotein 1; a transcriptional co-activator that maintains nucleolar integrity and acts in ribosomal RNA transcription; may play a role in nucleogenesis and reproduction	0.01	0.58	DOWN
<i>DDB1</i>	DDB1 DNA damage-binding protein 1	Damage-specific DNA-binding protein 1; a putative transcriptional activator that regulates cells viability and genomic integrity during lens development; involved in hair follicle development; regulates cell cycle and apoptosis	0.37	1.12	UP
<i>NUCB1</i>	NUCB1 Nucleobindin-1	Nucleobindin 1; plays a role in cellular calcium ion homeostasis and regulation of transcription ; may be involved in G protein-coupled receptor protein signaling pathway; decreased protein expression is associated with Alzheimer disease	0.10	4.76	UP
<i>MED14</i>	MED14 Mediator of RNA polymerase II transcription subunit 14	Mediator complex subunit 14; exhibits ligand-dependent nuclear receptor transcription coactivator activity	0.07	2.44	UP
<i>PPP1R10</i>	PPP1R10 Serine/threonine-protein phosphatase 1 regulatory subunit 10	Protein phosphatase 1 regulatory subunit 10; binds to protein phosphatase and inhibits its activity; acts in chromosome decondensation; regulation of transcription ; cell death; and protein ubiquitination; aberrantly expressed in Alzheimer disease	0.45	1.17	UP
<i>ILF3</i>	ILF3 Isoform 1 of Interleukin enhancer-binding factor 3	Interleukin enhancer binding factor 3; a transcriptional regulator that acts in mRNA stabilization; chromatin remodeling; and immune response; regulates translation; cell division; and nuclear RNA export; upregulated in lung adenocarcinoma	0.18	0.75	DOWN
<i>PA2G4</i>	PA2G4 Proliferation-associated protein 2G4	Proliferation-associated 2G4 38kDa; a transcription corepressor that inhibits cell growth; regulates insulin receptor signaling pathway; transcription factor activity; promotes fibroblast proliferation; upregulated in colorectal tumor	0.23	0.80	DOWN
<i>BASP1</i>	BASP1 Isoform 1 of Brain acid soluble protein 1	Brain abundant membrane attached signal protein 1; a transcription corepressor that plays a role in axonogenesis and growth; may act in kidney development; synaptic transmission; and actin cytoskeleton organization	0.25	1.41	UP
<i>SYNJ2BP</i>	SYNJ2BP Synaptotagmin-2-binding protein	Synaptotagmin 2 binding protein; promotes endocytosis; receptor internalization; and follicle-stimulating hormone secretion; mediates transcription ; plays a role in hormone-mediated signaling and intracellular mitochondrial distribution	0.34	0.87	DOWN
<i>SUZ12</i>	SUZ12 Polycomb protein SUZ12	Suppressor of zeste 12 homolog; a histone methyltransferase regulator that acts in chromatin silencing; regulation of transcription ; and embryonic development; upregulated in colon cancer; gene translocation correlates with endometrial stromal sarcoma	0.47	1.09	UP
<i>RPL7A</i>	RPL7A;SNORD24 60S ribosomal protein L7a	Ribosomal protein L7a; a putative component of the 60S ribosomal subunit that binds thyroid hormone receptor; inhibits transcription by antagonizing nuclear receptors; upregulated in colorectal cancer and acts as trk-2h fusion oncogene in breast cancer	0.39	0.91	DOWN
<i>NAT10</i>	NAT10 N-acetyltransferase 10	N-acetyltransferase 10; a transcriptional activator that plays a role in rRNA processing; histone acetylation; mitotic chromosome decondensation; and protein import into nucleus	0.07	1.41	UP

<i>SF3B3</i>	SF3B3 Isoform 1 of Splicing factor 3B subunit 3	Splicing factor 3b subunit 3 (130 kDa); a component of the U2 snRNP-associated protein complex SF3b that plays a role in spliceosome assembly; interacts with STAGA and TFTC complexes implicated in DNA repair; chromatin modification; and transcription	0.10	0.71	DOWN
<i>CDK9</i>	MIR2861;CDK9 Isoform 1 of Cyclin-dependent kinase 9	Cyclin-dependent kinase 9; an RNA polymerase II transcription elongation factor that plays a role in apoptosis; histone methylation; stem cell differentiation; and skeletal muscle tissue development; stimulates cell growth and inhibits gene expression	0.10	0.69	DOWN
<i>AATF</i>	AATF Protein AATF	Apoptosis antagonizing transcription factor ; inhibits apoptosis; cell proliferation; and superoxide release; involved in p53 signaling in response to DNA damage; gene expression is downregulated in kidney; prostate; and colon carcinomas	0.21	0.82	DOWN
<i>SUMO1</i>	SUMO1 Small ubiquitin-related modifier 1	SMT3 suppressor of mif two 3 homolog 1; a small conjugating protein ligase that acts in protein sumoylation; inhibits transcription and membrane excitability; regulates DNA recombination and histone acetylation; gene SNPs are associated with cleft lip	0.08	0.64	DOWN
<i>SCAF1</i>	SCAF1 Splicing factor, arginine/serine-rich 19	SR-related CTD-associated factor 1; binds to RNA polymerase core enzyme; may act in regulation of transcription from RNA polymerase II promoter; RNA splicing; and mRNA processing; mRNA upregulation correlates with ovarian and colonic neoplasms	0.38	1.19	UP
<i>NONO</i>	NONO Non-POU domain-containing octamer-binding protein	Non-POU-domain-containing octamer-binding; a transcriptional regulator that inhibits RNA export from nucleus; may play a role in mRNA processing and regulation of pH; upregulated in prostate cancer	0.17	0.73	DOWN
<i>PRPF6</i>	PRPF6 Pre-mRNA-processing factor 6	PRP6 pre-mRNA processing factor 6; an androgen and glucocorticoid receptor binding transcription coactivator that plays a role in spliceosome assembly; gene mutation causes autosomal dominant retinitis pigmentosa	0.07	1.32	UP
<i>THOC1</i>	THOC1 Isoform 1 of THO complex subunit 1	THO complex-1; binds to RNA polymerase; acts in transcription elongation ; nucleotide excision repair; induction of apoptosis; and cell cycle arrest; upregulated in breast; lung; colon; and ovarian carcinomas and downregulated in skin and testis carcinomas	0.44	1.04	UP
<i>NFIX</i>	NFIX Isoform 3 of Nuclear factor 1 X-type	Nuclear factor IX (CCAAT-binding transcription factor); an RNA polymerase III transcription factor that mediates endochondral ossification and mineralization	0.48	0.96	DOWN
<i>CBX8</i>	CBX8 Chromobox protein homolog 8	Chromobox homolog 8; a transcriptional repressor that plays a role in cell fate determination; senescence; and fibroblast proliferation; may act in chromatin silencing	0.20	0.69	DOWN
<i>WAC</i>	WAC Uncharacterized protein	WW domain containing adapter with coiled-coil; targets RNF20 and RNF40 to associate with RNA polymerase II complex for H2B ubiquitination at active transcription sites ; plays a role in cell cycle checkpoint activation in response to genotoxic stress	0.25	0.60	DOWN
<i>CHD3</i>	CHD3;LOC732272;SNORA69 Isoform 1 of Chromodomain-helicase-DNA-binding protein 3	Chromodomain helicase DNA binding protein 3; an ATPase and a transcriptional repressor that acts in chromatin and spindle organization; regulates centrosome integrity; acts as autoantigen in dermatomyositis; mRNA is upregulated in acute myeloid leukemia	0.28	0.86	DOWN
<i>ZNF326</i>	ZNF326 Isoform 1 of Zinc finger protein 326	Protein with strong similarity to mouse Zfp326; which is a transcriptional activator containing two C2H2 type zinc finger motifs that may play a role in neuronal differentiation	0.30	0.82	DOWN
<i>TADA3</i>	TADA3 Isoform 2 of Transcriptional adaptor 3	Transcriptional adaptor 3; a retinoid-X receptor and transcription activator that acts in retinoic acid receptor and estrogen receptor signaling; regulates protein stabilization and apoptosis	0.20	∞	UP
<i>BPTF</i>	BPTF Isoform 4 of Nucleosome-remodeling factor subunit BPTF	Bromodomain PHD finger transcription factor ; an nucleosome-dependent ATPase that functions in chromatin remodeling; neurite outgrowth; and embryonic placenta and trophoblast development; overexpressed in amyotrophic lateral sclerosis and Alzheimer disease	0.04	8.46	UP
<i>YAF2</i>	YAF2 Isoform 1 of YY1-associated factor 2	YY1-associated factor 2; a transcriptional co-activator that plays a role in the regulation of apoptosis and developmental growth	0.09	0.02	DOWN
<i>FUBP3</i>	FUBP3 Isoform 1 of Far upstream element-binding protein 3	Far upstream element (FUSE) binding protein 3; a RNA polymerase II transcription factor that plays a role in regulation of gene expression; aberrantly expressed in prostate; renal; and urothelial cancers	0.21	1.95	UP
<i>AFF4</i>	AFF4 Isoform 2 of AF4/FMR2 family member 4	AF4-FMR2 family member 4; a putative transcription factor that plays a role in spermatogenesis; corresponding gene is located to a chromosomal position associated with acute lymphoblastic leukemia	0.09	2.77	UP
<i>BAZ1A</i>	BAZ1A Isoform 2 of Bromodomain adjacent to zinc finger domain protein 1A	Bromodomain adjacent to zinc finger domain 1A; a transcription repressor that regulates ATPase activity; functions in DNA replication; histone modification; protein stabilization; chromatin assembly or disassembly; and nucleosome assembly and mobilization	0.44	1.04	UP
<i>SRSF2</i>	SRSF2 cDNA FLJ35170 fis, clone PLACE6012942, highly similar to SPLICING FACTOR, ARGININE/SERINE-RICH 2	Splicing factor arginine-serine-rich 2; a transcription activator that regulates mitotic cell cycle; cell proliferation; and caffeine mediated alternative nuclear mRNA splicing; acts in lymphocyte activation; mRNA processing; and splice site selection	0.15	0.63	DOWN
<i>IWS1</i>	IWS1 Isoform 3 of Protein IWS1 homolog	IWS1 homolog; a transcription factor binding protein that plays a role in mRNA transcription and processing; involved in mRNA export from nucleus; regulates histone methylation and inhibits histone acetylation; promotes cell growth	0.20	∞	UP
<i>SF1</i>	SF1 cDNA FLJ54064, highly similar to Splicing factor 1	Splicing factor 1; a transcription corepressor that plays a role in spliceosome assembly; mouse Sf1 correlates with prenatal death and colon tumorigenesis	0.42	1.07	UP
<i>PQBP1</i>	PQBP1 Isoform 7 of Polyglutamine-binding protein 1	Polyglutamine binding protein 1; a transcriptional corepressor that plays a role in the induction of apoptosis; long-term memory; and male courtship behavior; gene mutation causes multiple abnormalities associated with mental retardation	0.01	0.39	DOWN
<i>PHF6</i>	PHF6 Isoform 2 of PHD finger protein 6	PHD finger protein 6; a nucleolar protein that may act in transcriptional regulation ; brain development; and hormone biosynthesis; gene mutations cause familial and sporadic Borjeson-Forssman-Lehmann syndrome; and several forms of leukemia	0.02	6.19	UP
<i>PBRM1</i>	PBRM1 Isoform 6 of Protein polybromo-1	Polybromo 1; a transcriptional coregulator that binds to histone; acts in cell proliferation and organ development; may be involved in retinoic acid receptor signaling; genetic locus is associated with susceptibility to schizophrenia	0.21	0.61	DOWN

<i>PICALM</i>	PICALM Isoform 3 of Phosphatidylinositol-binding clathrin assembly protein	Phosphatidylinositol binding clathrin assembly protein; a transcription activator that acts in endocytosis and axonogenesis; gene translocation causes lymphoblastic leukemia and myeloid leukemia; SNP correlates with late onset Alzheimer disease	0.03	0.61	DOWN
<i>PDCD11</i>	PDCD11 Protein RRP5 homolog	Programmed cell death 11; interacts with the p65 subunit of NF-kappaB and HIV-1 Tat to modulate synergism between Tat and p65 in activating LTR transcription ; required for generation of 18S rRNA	0.23	1.15	UP
<i>BRD3</i>	BRD3 Isoform 2 of Bromodomain-containing protein 3	Bromodomain containing 3; a transcription factor that binds to histone acetyl-lysine; may be involved in regulation of endothelial cell differentiation and male gonad development; upregulated in urinary bladder neoplasms	0.10	2.04	UP
<i>CHD3</i>	CHD3;LOC732272;SNORA69 Isoform 2 of Chromodomain-helicase-DNA-binding protein 3	Chromodomain helicase DNA binding protein 3; an ATPase and a transcriptional repressor that acts in chromatin and spindle organization; regulates centrosome integrity; acts as autoantigen in dermatomyositis; mRNA is upregulated in acute myeloid leukemia	0.22	1.74	UP
<i>GTF3C3</i>	GTF3C3 Isoform 2 of General transcription factor 3C polypeptide 3	General transcription factor IIIC polypeptide 3 102 kDa; a RNA polymerase III transcription termination factor ; mRNA is upregulated in ovarian carcinomas	0.17	0.77	DOWN
<i>GTF3C2</i>	GTF3C2 Isoform 2 of General transcription factor 3C polypeptide 2	General transcription factor IIIC polypeptide 2 beta 110kDa; a nuclear protein that plays a role in RNA polymerase III transcription ; protein expression is upregulated in ovarian carcinoma and in cells during viral infection	0.16	1.55	UP
<i>SYMPK</i>	SYMPK Isoform 2 of Symplekin	Symplekin; a transcription regulator that mediates mRNA polyadenylation; cell growth and proliferation and microtubule polymerization; mediates gene expression; phosphatase activity; establishment of cell polarity; and spindle assembly	0.26	0.67	DOWN
<i>BCLAF1</i>	BCLAF1 Isoform 2 of Bcl-2-associated transcription factor 1	BCL2-associated transcription factor 1; a transcriptional repressor that plays a role in the induction of apoptosis and is involved in response to peptide hormone stimulus; protein is downregulated in choroid plexus papilloma	0.01	0.55	DOWN
<i>PABPN1</i>	PABPN1 Isoform 2 of Polyadenylate-binding protein 2	Poly(A)-binding protein nuclear 1; a transcription activator that plays a role in mRNA polyadenylation; regulates skeletal muscle development; cell cycle; and cell proliferation; gene mutations are associated with oculopharyngeal muscular dystrophy	0.37	0.90	DOWN
<i>MECP2</i>	MECP2 Isoform A of Methyl-CpG-binding protein 2	Methyl CpG binding protein-2; a transcription corepressor that mediates DNA methylation; neurogenesis; neurotransmission; and behavior; downregulated in autistic disorder; Down syndrome; and Prader-Willi syndrome; gene mutation causes Rett syndrome	0.41	0.85	DOWN
<i>HMGB1</i>	HMGB1 High mobility group protein B1	High-mobility group box 1; a transcription regulator that acts in protein kinase cascade; inflammation; and DNA unwinding; upregulated in arteriosclerosis; HIV infection; arthritis; lung diseases; sepsis; and liver and various other cancers	0.15	0.66	DOWN
<i>SUPT6H</i>	SUPT6H Isoform 2 of Transcription elongation factor SPT6	Suppressor of Ty 6 homolog; a transcription elongation factor that mediates RNA elongation from RNA polymerase II promoter and chromatin remodeling	0.45	0.90	DOWN
<i>CNBP</i>	CNBP Isoform 2 of Cellular nucleic acid-binding protein	CCHC-type zinc finger nucleic acid binding protein; binds to ssDNA and 5'-UTR of mRNA; regulates transcription and translation ; acts in blood circulation and in forebrain and muscle development; gene mutation is associated with myotonic dystrophy	0.43	0.90	DOWN
<i>THOC3</i>	THOC3 Uncharacterized protein	THO complex 3; a component of the transcription/export (TREX) complex; which may be important for coupling transcription to nuclear export of mRNA	0.12	0.14	DOWN
<i>MBD2</i>	MBD2 Isoform 2 of Methyl-CpG-binding domain protein 2	Methyl CpG binding domain protein 2; a transcriptional repressor that acts in DNA methylation and chromatin silencing; mRNA is upregulated in systemic lupus erythematosus and breast cancer and downregulated in stomach and colorectal cancers	0.24	0.71	DOWN
<i>TRIM28</i>	TRIM28 Isoform 2 of Transcription intermediary factor 1-beta	Tripartite motif-containing 28; a transcriptional regulator that acts in histone methylation and macrophage differentiation; mediates pluripotency; and post-gastrulation development; mRNA is aberrantly expressed in colorectal and gastric cancer	0.25	1.25	UP
<i>MBD3</i>	MBD3 Isoform 2 of Methyl-CpG-binding domain protein 3	Methyl CpG binding domain protein 3; a transcription repressor that plays a role in inner cell mass cellular morphogenesis; nucleosome remodeling; and regulation of extra-embryonic development; mRNA is upregulated in malignant form of glioma	0.09	0.58	DOWN
<i>BRD4</i>	BRD4 Isoform 1 of Bromodomain-containing protein 4	Bromodomain containing 4; a transcription factor that regulates small GTPase signalling; acts in G2-M transition of mitosis; cell proliferation; apoptosis; and in utero embryo development; genetic translocation correlates with lung neoplasms	0.08	0.29	DOWN
<i>BRD4</i>	BRD4 Isoform 2 of Bromodomain-containing protein 4	Bromodomain containing 4; a transcription factor that regulates small GTPase signalling; acts in G2-M transition of mitosis; cell proliferation; apoptosis; and in utero embryo development; genetic translocation correlates with lung neoplasms	0.18	2.80	UP
<i>PHC2</i>	PHC2 Uncharacterized protein	Polyhomeotic homolog 2; component of a nuclear protein complex containing HPH1 (EDR1) and BMI1; component of H2A Ubiquitin Ligase Complex; may act in regulation of transcription	0.09	0.60	DOWN
<i>ASCC2</i>	ASCC2 Isoform 2 of Activating signal cointegrator 1 complex subunit 2	Activating signal cointegrator 1 complex subunit 2 (ASC-1 complex subunit P100); component of the activating signal cointegrator 1 (ASC-1) complex which functions as a transcriptional coactivator	0.19	0.68	DOWN
<i>MED27</i>	MED27 Isoform 2 of Mediator of RNA polymerase II transcription subunit 27	Mediator complex subunit 27; a subunit of the CRSP complex that is required together with the TAF(II)s for SPI mediated transcriptional activation ; binds various proteins; including MED9; MED19; SURF5; THRAP6; and IXL	0.20	0.00	DOWN
<i>RING1</i>	RING1 Isoform 2 of E3 ubiquitin-protein ligase RING1	Ring finger protein 1; a transcriptional corepressor that plays a role in histone H2A ubiquitination; anteroposterior pattern specification; and gene silencing; acts in skeletal system and eye development	0.22	0.17	DOWN
<i>KDM1A</i>	KDM1A Isoform 1 of Lysine-specific histone demethylase 1A	Lysine (K) specific demethylase 1; a transcriptional corepressor that acts in histone (H3-K4 specific) demethylation; gastrulation; and chromatin modification; regulates cell proliferation and protein stability; upregulated in prostate cancer	0.01	0.65	DOWN
<i>HNRNPUL2</i>	HNRNPUL2 Heterogeneous nuclear ribonucleoprotein U-like protein 2	Member of the SAP (SAF-A or B; Acinus and PIAS) domain containing family; which may bind DNA; has moderate similarity to human HNRNPU; which is a transcriptional coactivator that is involved in apoptosis and mRNA stabilization	0.43	1.08	UP

<i>ENO1</i>	ENO1 Isoform alpha-enolase of Alpha-enolase	Enolase 1 alpha; a transcriptional repressor that is involved in inflammatory response; lipid metabolic process; and regulation of cell proliferation; aberrant expression correlates with Alzheimer disease; astrocytoma; meningioma; and glioblastoma	0.12	0.66	DOWN
<i>CDC5L</i>	CDC5L Cell division cycle 5-like protein	CDC5 cell division cycle 5-like; a component of the Prp19 complex that has transcriptional activator activity ; mediates cell cycle and mitosis; required for pre mRNA splicing; mRNA expression is downregulated in multiple sclerosis and osteosarcoma	0.13	0.71	DOWN
<i>SMARCE1</i>	SMARCE1 Uncharacterized protein	SWI-SNF related matrix associated actin dependent regulator of chromatin subfamily e member 1; a transcriptional regulator that acts in chromatin remodeling and nucleosome disassembly; gene mutations cause breast and liver cancers	0.12	0.19	DOWN
<i>ATAD2</i>	ATAD2 Isoform 2 of ATPase family AAA domain-containing protein 2	ATPase family AAA domain containing 2; an AAA+ ATPase that functions as a transcriptional coactivator for the androgen receptor; estrogen receptor alpha; and MYC; overexpressed in prostate cancers with high Gleason scores and aggressive breast cancers	0.22	0.41	DOWN
<i>CSNK2A1</i>	CSNK2A1 casein kinase II subunit alpha isoform b	Casein kinase 2 alpha 1 polypeptide; a transcription factor that acts in cell proliferation; protein amino acid phosphorylation; and cardiac muscle cell differentiation; involved in response to ionizing radiation and heat; upregulated in breast neoplasm	0.26	1.63	UP
<i>DHX57</i>	DHX57 DHX57 protein variant (Fragment)	Member of the RWD domain containing family; has low similarity to human DHX30; which exhibits transcription corepressor activity	0.42	1.08	UP
<i>CTR9</i>	CTR9 RNA polymerase-associated protein CTR9 homolog	Paf1-RNA polymerase II complex component homolog; a component of the Cdc73-Paf1 complex that binds CDC73; acts in transcription of IL6 responsive genes via regulating DNA association of STAT3 and modification of histone methylation	0.05	0.23	DOWN
<i>CDKN2A</i>	CDKN2A Cyclin-dependent kinase inhibitor 2A, isoform 4	Cyclin dependent kinase inhibitor 2A; a transcription factor that acts in aging and cell cycle arrest; downregulated in adenocarcinoma and several neoplasms; upregulated in psoriasis and small cell carcinoma; gene mutation causes melanoma	0.01	3.25	UP
<i>PTRF</i>	PTRF Isoform 2 of Polymerase I and transcript release factor	Polymerase I and transcript release factor; a transcription termination factor that acts in transcription ternary complex disassembly; caveola assembly; and receptor internalization; gene mutations are associated with congenital generalized lipodystrophy	0.11	∞	UP
<i>NFIA</i>	NFIA Nuclear factor 1	Nuclear factor I-A; a transcriptional regulator that acts in brain development; neuron differentiation; and redox signal response	0.38	0.62	DOWN
<i>PTRF</i>	PTRF cDNA FLJ53495, highly similar to Polymerase I and transcript release factor	Polymerase I and transcript release factor; a transcription termination factor that acts in transcription ternary complex disassembly; caveola assembly; and receptor internalization; gene mutations are associated with congenital generalized lipodystrophy	0.10	0.74	DOWN
<i>POGZ</i>	POGZ Isoform 5 of Pogo transposable element with ZNF domain	Pogo transposable element with ZNF domain; a putative zinc finger protein that interacts with the Sp1 transcription factor (SP1) ; and the C terminus of lens epithelium derived growth factor/p75 (PSIP1)	0.19	1.23	UP
<i>RSF1</i>	RSF1 Isoform 2 of Remodeling and spacing factor 1	Remodeling and spacing factor 1; exhibits transcriptional regulator activity	0.18	0.45	DOWN
<i>DMAPI</i>	DMAPI Uncharacterized protein	DNA methyltransferase 1 associated protein 1; a transcription repressor that binds to DNA; involved in DNA-dependent DNA replication; double-strand break repair; protein-DNA complex assembly; and chromosome integrity	0.46	0.91	DOWN
<i>HNRNPK</i>	HNRNPK cDNA FLJ54552, highly similar to Heterogeneous nuclear ribonucleoprotein K	Heterogeneous nuclear ribonucleoprotein K; a transcription factor that inhibits nuclear mRNA splicing via spliceosome; acts in cell cycle checkpoint; T cell activation; and apoptosis; upregulated in head and neck; nasopharyngeal; and colorectal carcinoma	0.37	0.91	DOWN
<i>S100A2</i>	S100A2 Uncharacterized protein	S100 calcium binding protein A2; a transcriptional coactivator that induces apoptosis in response to DNA damage; may play a role in keratinocyte differentiation; aberrantly expressed in several cancers; mRNA is upregulated in psoriasis	0.22	0.65	DOWN
<i>UIMC1</i>	UIMC1 Isoform 3 of BRCA1-A complex subunit RAP80	Ubiquitin interaction motif containing 1; a transcriptional regulator that binds to NR6A1 and ESR1; forms a complex with Abraxas and BRCA1 that is required for DNA damage response; increased presence of antibodies correlates with various types of cancer	0.20	∞	UP
<i>GADD45GIP1</i>	GADD45GIP1 Growth arrest and DNA damage-inducible proteins-interacting protein 1	Growth arrest and DNA-damage-inducible gamma interacting protein 1; a transcription corepressor that binds GADD45 family members; binds STAT3 to positively regulate its transcriptional activity; decreased expression correlates with paclitaxel resistance	0.09	5.25	UP
<i>JUP</i>	JUP Junction plakoglobin	Junction plakoglobin; a transcription coactivator that binds CDH2; CDH5; PECAM1; PTPRF; and PTPRK; regulates cell adhesion; apoptosis; and transcription; downregulated in several cancers; gene overexpression correlates with acute myeloid leukemia	0.41	0.96	DOWN
<i>HMGNI</i>	HMGNI138;HMGNI Non-histone chromosomal protein HMG-14	High-mobility group nucleosome binding domain 1; a transcription factor that plays a role in chromatin remodeling; protein import into nucleus; and regulation of histone acetylation; increased expression correlates with Down syndrome	0.10	0.66	DOWN
<i>CSDA</i>	CSDA CSDA protein variant (Fragment)	Cold shock domain protein A; a transcriptional regulator that plays a role in RNA splicing; embryogenesis; antiapoptosis; and VEGF signaling; inhibits endothelial cell proliferation; upregulated in hepatocellular carcinoma	0.40	1.21	UP
<i>CAND1</i>	CAND1 Isoform 2 of Cullin-associated NEDD8-dissociated protein 1	Cullin-associated and neddylation-dissociated 1; a transcription activator that acts in SCF complex assembly; cullin deneddylation; and regulation of ubiquitin-protein ligase activity; gene map position correlates with Emery-Dreifuss muscular dystrophy	0.11	0.53	DOWN
<i>SUDS3</i>	SUDS3 Sin3 histone deacetylase corepressor complex component SDS3	Suppressor of defective silencing 3; a component of the SIN3A transcriptional corepressor complex through binding to the SIN3A HDAC-interaction domain; gene maps to a region that is deleted in some prostate cancers	0.14	0.24	DOWN
<i>SIN3B</i>	SIN3B Isoform 3 of Paired amphipathic helix protein Sin3b	SIN3 homolog B transcription regulator; a transcription corepressor that acts in cell proliferation; cell aging; sarcomere organization; and senescence-associated heterochromatic foci formation; mRNA is downregulated in renal cell carcinoma	0.13	∞	UP

<i>DIDO1</i>	DIDO1 Isoform 4 of Death-inducer obliterator 1	Death inducer obliterator 1; a putative transcription activator that plays a role in caspase activation; induction of apoptosis; and embryonic limb morphogenesis; abnormal gene expression correlates with myelodysplastic syndrome	0.06	0.67	DOWN
<i>EHMT2</i>	EHMT2 Euchromatic histone-lysine N-methyltransferase 2	Euchromatic histone-lysine N-methyltransferase 2; a transcriptional regulator that acts in histone methylation; synaptonemal complex assembly; germ cell development; and bile acid biosynthesis; gene polymorphism is associated with colorectal cancer	0.38	1.55	UP
<i>PQBP1</i>	PQBP1 Protein	Polyglutamine binding protein 1; a transcriptional corepressor that plays a role in the induction of apoptosis; long-term memory; and male courtship behavior; gene mutation causes multiple abnormalities associated with mental retardation	0.10	∞	UP
<i>RSL1D1</i>	RSL1D1 RSL1D1 protein	Ribosomal L1 domain containing 1; binds GNL3 to control its partitioning between nucleolus and nucleoplasm; stimulates transcription from the PLAU promoter; regulates replicative senescence via a mechanism that involves inhibition of PTEN translational	0.12	0.74	DOWN
<i>GTF3C5</i>	GTF3C5 Uncharacterized protein	General transcription factor IIIC polypeptide 5; plays a role in histone acetylation; elongation and termination of RNA polymerase III transcription ; mRNA expression is upregulated in ovarian carcinomas	0.19	1.69	UP
<i>ARID1A</i>	ARID1A Isoform 2 of AT-rich interactive domain-containing protein 1A	AT rich interactive domain 1A; a transcription coactivator and glucocorticoid receptor that acts in chromatin remodeling and regulation of cell cycle and cell differentiation; downregulated in breast and kidney neoplasms	0.12	0.63	DOWN
<i>LONP1</i>	LONP1 Lon protease homolog	Lon peptidase 1 mitochondrial; an ATP-dependent peptidase that functions in mitochondrial DNA metabolism; acts in protein degradation and respiratory chain complex IV assembly; may regulate transcription ; gene mutation correlates with mental retardation	0.09	0.91	DOWN
<i>HMGNS</i>	HMGNS Uncharacterized protein	High-mobility group nucleosome binding domain 5; a nuclear protein that binds nucleosomes to unfold chromatin and regulate transcription	0.19	0.55	DOWN
<i>TFAM</i>	TFAM Protein	Transcription factor A mitochondrial; binds to DNA; functions in mitochondrial organization and DNA replication; and heart development; gene is aberrantly expressed in Down syndrome; hepatitis; oxyphilic adenoma; mitochondrial myopathy; and thyroid cancer	0.08	2.52	UP
<i>DMAPI</i>	DMAPI Uncharacterized protein	DNA methyltransferase 1 associated protein 1; a transcription repressor that binds to DNA; involved in DNA-dependent DNA replication; double-strand break repair; protein-DNA complex assembly; and chromosome integrity	0.07	1.83	UP
<i>HTATSF1</i>	HTATSF1 cDNA FLJ60139, highly similar to Homo sapiens HIV TAT specific factor 1 (HTATSF1), mRNA	HIV TAT specific factor 1; a transcription elongation regulator that regulates transcription from RNA polymerase II promoter; may play a role in RNA splicing	0.10	0.45	DOWN
<i>HNRNPU</i>	HNRNPU cDNA FLJ54020, highly similar to Heterogeneous nuclear ribonucleoprotein U	Heterogeneous nuclear ribonucleoprotein U; a transcription regulator that plays a role in apoptosis; chromatin organization; and mRNA stabilization; may act in nuclear transport and RNA processing	0.19	0.76	DOWN
<i>C1orf77</i>	CHTOP Isoform 3 of Chromatin target of PRMT1 protein	Chromosome 1 open reading frame 77 (Small protein rich in arginine and glycine Friend of Prmt1); DNA binding activity plays a role in activation of estradiol-dependent transcription ; regulates cell proliferation; localized to the nucleolus	0.23	0.77	DOWN
<i>MORF4L2</i>	MORF4L2 Uncharacterized protein	Mortality factor 4 like 2; a transcription regulator that binds to histone deacetylase to form a complex	0.39	0.91	DOWN
<i>RBBP4</i>	RBBP4 Isoform 3 of Histone-binding protein RBBP4	Retinoblastoma binding protein 4; an RNA polymerase II transcription factor that plays a role in DNA replication-dependent nucleosome assembly; histone deacetylation; apoptosis; cytoskeletal organization; and DNA repair; upregulated in thyroid carcinoma	0.20	1.21	UP
<i>MED4</i>	MED4 cDNA FLJ50738, highly similar to Mediator complex subunit 4	Mediator complex subunit 4; a component of activator-recruited cofactor complex that exhibits transcriptional coactivator activity	0.03	0.30	DOWN
<i>NR0B1</i>	NR0B1 Isoform 2 of Nuclear receptor subfamily 0 group B member 1	Nuclear receptor subfamily 0 group B member 1; a transcriptional regulator that acts in spermatogenesis; steroid synthesis; and acrosome reaction; inhibits transcription; gene mutations are associated with adrenal hypoplasia and hypogonadism	0.20	0.00	DOWN
<i>IRF2BP2</i>	IRF2BP2 Isoform 3 of Interferon regulatory factor 2-binding protein 2	Interferon regulatory factor 2 binding protein 2; a transcriptional corepressor with IRF2; a component of the TEAD4/VGLL4 transcription factor complex that controls VEGFA expression; may act in revascularization of ischemic cardiac and skeletal muscles	0.41	1.21	UP
<i>SMARCA1</i>	SMARCA1 SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 1	SWI SNF related matrix associated actin dependent regulator of chromatin subfamily a member 1; an ATPase that binds progesterone receptor; plays a role in chromatin remodeling; may act in transcription and cell differentiation	0.10	0.38	DOWN
<i>ZNF281</i>	ZNF281 Uncharacterized protein	Zinc finger protein 281; a specific RNA polymerase-II transcription factor	0.12	0.79	DOWN
<i>TP53BP1</i>	TP53BP1 tumor suppressor p53-binding protein 1 isoform 2	Tumor protein p53 binding protein 1; a transcriptional corepressor that is involved in DNA damage checkpoint; DNA repair and recombination; induction of apoptosis; and immune response; gene mutations are associated with familial breast and ovarian cancers	0.32	1.48	UP
<i>MEN1</i>	MEN1 Uncharacterized protein	Multiple endocrine neoplasia 1; a transcription corepressor that acts in endocrine pancreas development; induction of apoptosis; and regulation of insulin secretion; gene mutations correlates acromegaly; hyperparathyroidism; lung and several neoplasms	0.15	0.46	DOWN
<i>RBM14</i>	RBM14;RBM14-RBM4 RBM14-RBM4 protein isoform 1	RNA binding motif protein 14; a transcription regulator that may act in RNA splicing	0.42	0.92	DOWN
<i>SETX</i>	SETX Isoform 3 of Probable helicase senataxin	Senataxin; binds to RNA polymerase and mediates transcription from RNA polymerase II promoter; acts in mRNA splice site selection; gene mutations correlate with juvenile amyotrophic lateral sclerosis; ataxia-ocular apraxia 2; and ocular motility disorders	0.17	0.30	DOWN
<i>CUX1</i>	CUX1 Isoform 5 of Homeobox protein cut-like 1	Cut-like homeobox 1; a transcription regulator that regulates cell cycle; immune response; macrophage and monocyte differentiation; lung development; epithelial cell differentiation; and post-embryonic morphogenesis	0.38	0.82	DOWN
<i>CUX1</i>	CUX1 Isoform 7 of Homeobox protein cut-like 1	Cut-like homeobox 1; a transcription regulator that regulates cell cycle; immune response; macrophage and monocyte differentiation; lung development; epithelial cell differentiation; and post-embryonic morphogenesis	0.02	0.34	DOWN

<i>TCERG1</i>	TCERG1 Isoform 2 of Transcription elongation regulator 1	Transcription elongation regulator 1; a transcription coactivator that mediates RNA splicing and mRNA processing	0.23	0.71	DOWN
<i>H2AFY</i>	H2AFY Isoform 1 of Core histone macro-H2A.1	H2A histone family member Y; a transcription repressor that is involved in X chromosome inactivation; DNA packaging; regulates glucose tolerance and cell aging; upregulated in non-small-cell lung carcinoma and downregulated in breast neoplasms	0.42	1.26	UP
<i>MED12</i>	MED12 Uncharacterized protein	Mediator complex subunit 12; a transcriptional cofactor that acts in WNT signaling and planar cell polarity pathway; inhibits hedgehog signaling; gene mutation causes Opitz Kaveggia syndrome and gene polymorphisms are associated with hypothyroidism	0.20	∞	UP
<i>SON</i>	SON Isoform A of Protein SON	SON DNA binding protein; a transcriptional repressor that is involved in nuclear speck organization and regulation of cell cycle arrest and cell growth; may play a role in mRNA processing; acts as an antigen in astrocytoma	0.07	0.68	DOWN
<i>ZFR</i>	ZFR Uncharacterized protein	Zinc finger RNA binding protein; a putative transcription regulator ; expression is increased in response to ganglioside	0.34	0.88	DOWN
<i>ENO1</i>	ENO1 Isoform MBP-1 of Alpha-enolase	Enolase 1 alpha; a transcriptional repressor that is involved in inflammatory response; lipid metabolic process; and regulation of cell proliferation; aberrant expression correlates with Alzheimer disease; astrocytoma; meningioma; and glioblastoma	0.12	0.65	DOWN
<i>LRPPRC</i>	LRPPRC Leucine-rich PPR motif-containing protein, mitochondrial	Leucine rich PPR motif containing; a transcription activator that regulates mRNA export from nucleus and gluconeogenesis; may act in chromosome and cytoskeleton organization; gene mutations are associated with French-Canadian type Leigh disease	0.44	0.98	DOWN
<i>HSPD1</i>	HSPD1 60 kDa heat shock protein, mitochondrial	Heat shock 60kDa protein 1; a transcription activator ; involved in immune response; acts as an autoantigen in abortion; arthritis; Alzheimer disease; cardiovascular diseases; diabetes; mouth diseases; multiple sclerosis; and nervous system diseases	0.12	1.44	UP
<i>SUPT6H</i>	SUPT6H Isoform 1 of Transcription elongation factor SPT6	Suppressor of Ty 6 homolog; a transcription elongation factor that mediates RNA elongation from RNA polymerase II promoter and chromatin remodeling	0.22	0.74	DOWN
<i>BZW1</i>	BZW1 Isoform 1 of Basic leucine zipper and W2 domain-containing protein 1	Basic leucine zipper and W2 domains 1; a transcriptional activator that contains a leucine zipper motif and an ATP or GTP binding motif; transactivates the histone H4 gene promoter	0.22	0.80	DOWN
<i>SCYL1</i>	SCYL1 Isoform 5 of N-terminal kinase-like protein	SCY1-like 1; a transcriptional regulator that acts COPI-mediated retrograde transport and protein oligomerization; mediates maintenance of Golgi morphology and homeostasis; corresponding gene map position correlates with several cancers	0.15	0.48	DOWN
<i>XRN2</i>	XRN2 Isoform 2 of 5'-3' exoribonuclease 2	5'-3' exoribonuclease 2; an exonuclease that associates with miRNA and PSF; plays a role in pre-mRNA 3'-processing and transcription termination ; may be involved in meiotic recombination	0.28	0.92	DOWN
<i>PUF60</i>	PUF60 Isoform 4 of Poly(U)-binding-splicing factor PUF60	Poly-U binding splicing factor 60kDa; an RNA interacting transcriptional repressor that is involved in induction of apoptosis; increased expression is associated with colorectal cancer	0.43	1.07	UP
<i>PCBP2</i>	PCBP2 cDNA FLJ54752, highly similar to Poly(rC)-binding protein 2	Poly(rC) binding protein 2; a translation factor that plays a role in RNA splicing; may act in telomere maintenance and post transcriptional gene silencing	0.41	1.12	UP
<i>PNN</i>	PNN Isoform 1 of Pinin	Pinin desmosome associated protein; a pre-mRNA 5'-splice site binding transcription regulator that is involved in cell adhesion and regulation of growth; knockout of the mouse Pnn causes peri-implantational lethality	0.14	0.83	DOWN
<i>PWP1</i>	PWP1 cDNA FLJ51512, highly similar to Periodic tryptophan protein 1 homolog	PWP1 homolog; may play a role in cell proliferation and transcription ; increased mRNA expression correlates with adenocarcinoma tumors associated with pancreatic neoplasms	0.31	1.32	UP
<i>JUP</i>	JUP Uncharacterized protein	Junction plakoglobin; a transcription coactivator that binds CDH2; CDH5; PECAM1; PTPRF; and PTPRK; regulates cell adhesion; apoptosis; and transcription; downregulated in several cancers; gene overexpression correlates with acute myeloid leukemia	0.22	1.62	UP
<i>ZNF295</i>	ZNF295 Zinc finger protein 295 variant 4	Zinc finger protein 295; contains a BTB/POZ domain and multiple kruppel (C2H2) type zinc finger domains; functions as a transcriptional repressor that can homodimerize and bind the ZFP161 transcription factor ; two isoforms are observed	0.29	0.73	DOWN
<i>MED1</i>	MED1 Isoform 2 of Mediator of RNA polymerase II transcription subunit 1	Mediator complex subunit 1; a transcription factor that plays a role in cell differentiation and estrogen receptor signaling pathway; acts in eye; heart; and mammary gland development; aberrant expression correlates with breast neoplasms and epilepsy	0.20	0.00	DOWN
<i>NME1</i>	NME1;NME2;NME1-NME2 Uncharacterized protein	Non-metastatic cells 1 protein expressed in; a phosphotransferase that exhibits nuclease and GTPase activator activities; regulates transcription ; inhibits cell migration and proliferation; aberrant expression correlates with breast and other neoplasms	0.40	1.30	UP
<i>UHRF1</i>	UHRF1 E3 ubiquitin-protein ligase UHRF1	Ubiquitin-like with PHD and ring finger domains 1; a transcription regulator that acts in G1-S transition of mitosis and regulates cell proliferation; plays a role in DNMT1 maintenance methylation; mRNA is upregulated in lung; prostate; and breast cancers	0.34	0.87	DOWN
<i>GTF2H4</i>	GTF2H4 Uncharacterized protein	General transcription factor IIH polypeptide 4 52kDa; an ATPase activator and a transcription factor that mediates helicase activity; acts in promoter melting and excision repair; SNP is associated with multiple sclerosis and cervical cancer	0.12	0.50	DOWN
<i>HELLS</i>	HELLS Isoform 9 of Lymphoid-specific helicase	Helicase lymphoid specific; a transcription repressor that regulates DNA methylation and histone acetylation; functions in female meiosis; aging; antiapoptosis; and oocyte development; mouse Hells gene mutation causes osteoporosis; kyphosis; and cachexia	0.01	0.37	DOWN
<i>GTF3C1</i>	GTF3C1 Isoform 2 of General transcription factor 3C polypeptide 1	General transcription factor IIIC polypeptide 1 alpha 220kDa; a transcription initiation factor that is involved in transcription of tRNAs and 5s class of rRNAs; may play a role in cell differentiation	0.40	0.92	DOWN
<i>HELLS</i>	HELLS Isoform 6 of Lymphoid-specific helicase	Helicase lymphoid specific; a transcription repressor that regulates DNA methylation and histone acetylation; functions in female meiosis; aging; antiapoptosis; and oocyte development; mouse Hells gene mutation causes osteoporosis; kyphosis; and cachexia	0.01	∞	UP
<i>TCOF1</i>	TCOF1 Isoform 3 of Treacle protein	Treacher Collins-Franceschetti syndrome 1; a putative nucleocytoplasmic transporter that acts in rRNA transcription ; antiapoptosis; skeletal system development; and cell proliferation; gene mutations are associated with Treacher Collins syndrome	0.01	0.58	DOWN

<i>MED1</i>	MED1 Isoform 1 of Mediator of RNA polymerase II transcription subunit 1	Mediator complex subunit 1; a transcription factor that plays a role in cell differentiation and estrogen receptor signaling pathway; acts in eye; heart; and mammary gland development; aberrant expression correlates with breast neoplasms and epilepsy	0.10	∞	UP
<i>SRBD1</i>	SRBD1 Isoform 2 of S1 RNA-binding domain-containing protein 1	Tex-like; a putative transcription elongation factor ; contains CSZ; S1; and YqgF domains	0.14	9.69	UP
<i>ZNF593</i>	ZNF593 Zinc finger protein 593	Zinc finger protein 593; a transcription factor binding protein that plays a role in negative regulation of transcription from RNA polymerase II promoter	0.19	0.63	DOWN
<i>DHX9</i>	DHX9 ATP-dependent RNA helicase A	DEAH box polypeptide 9; an ATP-dependent 3'-5' DNA-RNA helicase and a transcription coactivator that is involved in EGFR signaling and retroviral mRNA nuclear export; autoantibodies are associated with systemic lupus erythematosus	0.13	0.71	DOWN
<i>HTATIP2</i>	HTATIP2 Isoform 3 of Oxidoreductase HTATIP2	HIV-1 Tat interactive protein 2 30kDa; a transcription coactivator that regulates mitochondrial membrane permeabilization and protein import into nucleus; mRNA is overexpressed in prostate cancer; mouse gene deletion causes hepatocellular carcinoma	0.41	1.08	UP
<i>JMJD1C</i>	JMJD1C Protein	Jumonji domain containing 1C; a transcriptional coactivator that interacts with androgen and glucocorticoid receptors; mRNA is downregulated in breast cancer	0.21	0.39	DOWN
<i>MECP2</i>	MECP2 Uncharacterized protein	Methyl CpG binding protein-2; a transcription corepressor that mediates DNA methylation; neurogenesis; neurotransmission; and behavior; downregulated in autistic disorder; Down syndrome; and Prader-Willi syndrome; gene mutation causes Rett syndrome	0.17	∞	UP
<i>SMARCD1</i>	SMARCD1 Isoform 1 of SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily D member 1	SWI-SNF related matrix associated actin dependent regulator of chromatin subfamily d member 1; a transcriptional coactivator that plays a role in chromatin modification	0.48	1.02	UP
<i>TSC22D4</i>	TSC22D4 cDNA FLJ57331, highly similar to TSC22 domain family protein 4	TSC22 domain family member 4; a transcriptional repressor that is involved in hyperosmotic response; may play a role in pituitary gland development; neuron fate specification; neuron development; and neuron maturation	0.31	0.67	DOWN
<i>CENPF</i>	CENPF Centromere protein F	Centromere protein F 350-400ka; a transcription corepressor that acts in mitosis; cytokinesis; and apoptosis; upregulated in breast neoplasms; expression of autoantibodies is associated with hepatocellular carcinoma	0.13	0.85	DOWN
<i>MYCBP</i>	MYCBP C-Myc-binding protein	c-Myc binding protein; a transcription coactivator that inhibits protein kinase activity; may play a role in erythrocyte differentiation and spermatogenesis	0.13	1.83	UP
<i>PLRG1</i>	PLRG1 Uncharacterized protein	Pleiotropic regulator 1; a transcription corepressor that plays a role in nuclear mRNA splicing; cell cycle process; cell proliferation; and embryonic development	0.41	1.13	UP
<i>NEDD8</i>	NEDD8 Uncharacterized protein	Neural precursor cell expressed developmentally downregulated 8; a transcription coactivator that acts in protein polyubiquitination and neddylation; regulates ubiquitin-protein ligase activity; decreased expression correlates with prostatic neoplasm	0.20	1.74	UP
<i>POLR2B</i>	POLR2B DNA-directed RNA polymerase	Polymerase II (DNA directed) polypeptide B; plays a role in transcription from RNA polymerase II promoter	0.06	1.52	UP
<i>TAF1</i>	TAF1 Dystonia 3 (Fragment)	TBP associated factor 1; a TFIID complex subunit that acts as a transcription coactivator ; exhibits histone acetyltransferase activity; regulates DNA damage response; cell cycle; and apoptosis; downregulated in X linked dystonia parkinsonism	0.02	0.45	DOWN
<i>MCM5</i>	MCM5 Uncharacterized protein	Minichromosome maintenance complex component 5; a transcription coactivator and putative ATPase that acts in DNA replication and cell cycle; upregulated in ovarian; gastric; and thyroid cancers	0.10	0.61	DOWN
<i>ZNF418</i>	APOL2 Apolipoprotein L2	Zinc finger protein 418; contains a KRAB A box and 17 tandem C2H2 type zinc finger motifs; a transcriptional repressor that suppresses that MAPK signaling pathway	0.37	1.47	UP
<i>EWSR1</i>	EWSR1 Protein	Ewing sarcoma breakpoint region 1; a transcriptional coactivator that acts in mRNA splice site selection and G1 phase of mitotic cell cycle; regulates angiogenesis and apoptosis; genetic translocations are associated with Ewing sarcoma and several cancers	0.24	1.62	UP
<i>SMARCB1</i>	SMARCB1 Uncharacterized protein	SWI-SNF related matrix associated actin dependent regulator of chromatin subfamily b member 1; a transcriptional regulator that acts in DNA integration; downregulated in rhabdomyosarcoma; gene mutation causes schwannomatosis and non-Hodgkin lymphoma	0.02	0.53	DOWN
<i>MTA1</i>	MTA1 Uncharacterized protein	Metastasis associated 1; a transcriptional regulator that forms NURD complex; acts in ER signaling; mammary gland branching; ubiquitination; and DSB-repair; upregulated in hepatocellular and prostate cancers; mRNA expression is increased in lung carcinoma	0.24	0.82	DOWN
<i>RBBP7</i>	RBBP7 Uncharacterized protein	Retinoblastoma binding protein 7; a putative transcriptional repressor that inhibits cell growth; induces apoptosis; mediates protein localization; may play a role in methylation-dependent chromatin silencing and multicellular organismal development	0.40	1.08	UP
<i>DDX54</i>	DDX54 Isoform 1 of ATP-dependent RNA helicase DDX54	DEAD (Asp-Glu-Ala-Asp) box polypeptide 54; a putative ATP-dependent RNA helicase with RNA-dependent ATPase activity; shows ligand-dependent binding to steroid hormone receptors; inhibits transcriptional activation by estrogen receptor alpha (ESR1)	0.13	1.58	UP
<i>RBM9</i>	RBFOX2 Isoform 6 of RNA binding protein fox-1 homolog 2	RNA binding motif protein 9; acts as a corepressor for progesterone receptor (PGR); growth hormone receptor (GHR) signaling; and estrogen-activated transcription	0.11	∞	UP
<i>IRF2BP2</i>	IRF2BP2 Isoform 2 of Interferon regulatory factor 2-binding protein 2	Interferon regulatory factor 2 binding protein 2; a transcriptional corepressor with IRF2; a component of the TEAD4/VGLL4 transcription factor complex that controls VEGFA expression; may act in revascularization of ischemic cardiac and skeletal muscles	0.47	0.91	DOWN
<i>BZW2</i>	BZW2 cDNA FLJ59990, highly similar to Rattus norvegicus basic leucine zipper and W2 domains 2 (Bzw2), mRNA	Protein with high similarity to basic leucine zipper protein 45 kDa (human BZW1); which is a transcriptional activator ; member of the eIF4-gamma; eIF5 or eIF2-epsilon family	0.07	0.09	DOWN
<i>TP53BP1</i>	TP53BP1 18 kDa protein	Tumor protein p53 binding protein 1; a transcriptional corepressor that is involved in DNA damage checkpoint; DNA repair and recombination; induction of apoptosis; and immune response; gene mutations are associated with familial breast and ovarian cancers	0.20	1.85	UP
<i>CEBPZ</i>	CEBPZ Uncharacterized protein	CCAAT enhancer binding protein zeta; a DNA binding protein that is involved in the transcriptional activation of the unfolded protein response; may play a role in senescence	0.32	1.07	UP

<i>BRD2</i>	BRD2 Bromodomain containing 2	Bromodomain containing 2; a transcription corepressor that acts in regulation of primary metabolic process; mediates neural tube closure during embryonic development; increased protein activity is associated with acute and chronic lymphocytic leukemia	0.20	∞	UP
<i>POLR2B</i>	POLR2B DNA-directed RNA polymerase	Polymerase II (DNA directed) polypeptide B; plays a role in transcription from RNA polymerase II promoter	0.17	3.19	UP
<i>MDC1</i>	MDC1 Isoform 4 of Mediator of DNA damage checkpoint protein 1	Mediator of DNA damage checkpoint 1; a transcription factor that acts in DNA damage checkpoint; antiapoptosis; protein complex assembly; and protein stabilization; polymorphism is associated with increased radiosensitivity in prostate brachytherapy	0.39	0.87	DOWN
<i>RFX7</i>	RFX7 Uncharacterized protein	Protein containing an regulatory factor X (RFX) DNA-binding domain; which binds ssDNA; has a region of moderate similarity to a region of mouse RFX5; which is a transcription activator that interacts with the X box motif of MHC-II promoters	0.10	0.36	DOWN
<i>NUP214</i>	NUP214 Isoform 2 of Nuclear pore complex protein Nup214	Nucleoporin 214 kDa; an nucleocytoplasmic transporter that is involved in mRNA export from nucleus; promotes cell growth; regulates transcription factor activity ; gene translocations are associated with acute myeloid leukemia	0.28	1.09	UP
<i>CTCF</i>	CTCF cDNA FLJ36076 fis, clone TESTI2019760, highly similar to TRANSCRIPTIONAL REPRESSOR CTCF	CCCTC-binding factor; a transcription regulator and histone deacetylase that mediates chromatin remodeling; NF-kappaB cascade; and apoptosis; upregulated in breast cancer; abnormal transcription activity correlates with Beckwith-Wiedemann syndrome	0.09	0.00	DOWN
<i>DPF2</i>	DPF2 cDNA FLJ54147, highly similar to Zinc-finger protein ubi-d4	D4 zinc and double PHD fingers family 2; a transcription factor that acts as a nuclear receptor-selective corepressor for ERRalpha by binding with both acetylated histone H3 and HDAC1; function as an adaptor protein for the SWI-SNF complex and RelB-p52	0.42	0.96	DOWN
<i>BCCIP</i>	BCCIP cDNA FLJ54246, highly similar to Homo sapiens BRCA2 and CDKN1A interacting protein (BCCIP), transcript variant C, mRNA	BRCA2 and CDKN1A interacting protein; acts in double-stranded DNA break repair; mitotic spindle formation; and neuron projection development; regulates transcription factor activity ; cytokinesis; and cell proliferation	0.36	1.30	UP
<i>MYST2</i>	KAT7 histone acetyltransferase MYST2 isoform 4	MYST histone acetyltransferase 2; a transcription cofactor that acts in histone acetylation; cell cycle arrest; DNA replication initiation; and fat cell differentiation	0.12	0.53	DOWN
<i>H3F3B</i>	H3F3A;H3F3B;H3F3AP6;H3F3AP4 cDNA FLJ52843, highly similar to Histone H3.3	H3 histone family 3B; plays a role in interferon mediated transcription ; may acts in DNA packaging; cell differentiation; and brain development	0.39	0.77	DOWN
<i>FUS</i>	FUS cDNA FLJ58049, highly similar to RNA-binding protein FUS	Fused in sarcoma; a transcription cofactor that acts in RNA processing; nucleocytoplasmic transport; chromosome organization; and regulation of sumoylation; downregulated in lung neoplasms; gene mutation causes sclerosis; leukemia; and myxoid liposarcoma	0.07	0.59	DOWN
<i>TOX4</i>	TOX4 cDNA FLJ54357, highly similar to Epidermal Langerhans cell protein LCP1	TOX high mobility group box family member 4 (Langerhans cell protein 1); a transcriptional activator whose activity is inhibited via interaction with the N-terminal region of protein phosphatase 1 nuclear targeting subunit (PPP1R10)	0.09	0.00	DOWN
<i>THOC2</i>	THOC2 Isoform 1 of THO complex subunit 2	THO complex 2; a component of the TREX complex which may couple transcription to mRNA export ; altered expression in brain may be associated with increased suicide in males	0.14	0.79	DOWN
<i>POH1</i>	PSMD14 Uncharacterized protein	Proteasome (prosome macropain) 26S subunit non-ATPase 14; a putative arginine deiminase that plays a role in ubiquitin-dependent protein catabolism; UV protection; and protein stabilization; promotes transcription	0.18	0.35	DOWN
<i>POLR2D</i>	POLR2D Uncharacterized protein	Polymerase II polypeptide D; a DNA-directed RNA polymerase that forms heterodimer with RPB7; plays a role in transcription from RNA Polymerase II promoter	0.22	0.55	DOWN
<i>POLR1A</i>	POLR1A DNA-directed RNA polymerase	DNA-directed RNA polymerase-I subunit RPA1; plays a role in DNA replication and transcription	0.49	1.01	UP
<i>MAT2A</i>	MAT2A S-adenosylmethionine synthase	Methionine adenosyltransferase II alpha; a transcription corepressor that plays a role in S-adenosylmethionine biosynthesis; mRNA is upregulated in hepatocellular carcinoma	0.15	2.80	UP
<i>PTMA</i>	PTMA;MIR1244-3;MIR1244-2;MIR1244-1 Uncharacterized protein	Prothymosin alpha; a transcriptional coactivator that acts in TLR cascade; lymphocyte activation; apoptosis; and immunity; upregulated in colon; prostate; and several other cancers	0.23	0.56	DOWN
<i>NCAPG2</i>	NCAPG2 Uncharacterized protein	Non-SMC condensin II complex subunit G2; plays a role in inner cell mass and embryonic stem cell growth; regulates cell differentiation; inhibits transcription ; upregulated expression correlates with melanoma	0.45	0.96	DOWN
<i>TCEB2</i>	TCEB2 Uncharacterized protein	Transcription elongation factor B (SIII) polypeptide 2; a ubiquitin-protein ligase that plays a role in RNA elongation and protein stabilization; mouse Tceb2 is upregulated in cortical ischemia model	0.25	0.77	DOWN
<i>SUMO1</i>	SUMO1 Uncharacterized protein	SMT3 suppressor of mif two 3 homolog 1; a small conjugating protein ligase that acts in protein sumoylation; inhibits transcription and membrane excitability; regulates DNA recombination and histone acetylation; gene SNPs are associated with cleft lip	0.28	1.69	UP
<i>PBRM1</i>	PBRM1 Uncharacterized protein	Polybromo 1; a transcriptional coregulator that binds to histone; acts in cell proliferation and organ development; may be involved in retinoic acid receptor signaling; genetic locus is associated with susceptibility to schizophrenia	0.35	1.31	UP
<i>NAT10</i>	NAT10 N-acetyltransferase 10 isoform b	N-acetyltransferase 10; a transcriptional activator that plays a role in rRNA processing; histone acetylation; mitotic chromosome decondensation; and protein import into nucleus	0.24	0.69	DOWN
<i>SMAD3</i>	SMAD3 mothers against decapentaplegic homolog 3 isoform 4	SMAD family member 3; a transcription factor that acts in liver development; T cell activation; transforming growth factor beta receptor signaling pathway; and regulation of cell growth; upregulated in prostate cancer and several other neoplasms	0.20	0.00	DOWN
<i>ACTB</i>	ACTB cDNA FLJ53662, highly similar to Actin, alpha skeletal muscle	Actin beta; a cytoskeletal and nuclear protein that mediates actin cytoskeleton organization and stress fiber assembly; regulates transcription ; aberrantly expressed in Alzheimer disease; mRNA is upregulated in colonic and hepatocellular carcinomas	0.49	1.02	UP
<i>MED23</i>	MED23 Uncharacterized protein	Mediator complex subunit 23; a ligand-dependent nuclear receptor transcription coactivator that regulates transcription initiation from RNA polymerase II promoter	0.04	0.26	DOWN
<i>USP22</i>	USP22 Isoform 2 of Ubiquitin carboxyl-terminal hydrolase 22	Ubiquitin specific peptidase 22; a subunit of the SAGA transcriptional cofactor complex that catalyzes deubiquitination of histone H2B; reduced cellular expression inhibits proliferation and induces cell cycle arrest in bladder cancer cells	0.28	1.90	UP

<i>POLR2H</i>	POLR2H Uncharacterized protein	Polymerase RNA II DNA directed polypeptide H; a component of DNA-directed RNA polymerase II core complex that plays a role in antiapoptosis and caspase inactivation; may be involved in transcription	0.05	0.60	DOWN
<i>BUD31</i>	BUD31 Uncharacterized protein	BUD31 homolog; induced by phorbol myristic acetate; may be involved in nuclear regulation of transcription ; contains an N-terminal acidic domain and cysteine-rich C-terminal domain with a putative zinc-finger motif	0.22	0.75	DOWN
<i>SRRT</i>	SRRT 57 kDa protein	Serrate RNA effector molecule homolog; interacts with the central region of FLASH; required for S phase progression; and replication-dependent transcription of histone and formation of NPAT foci	0.45	0.89	DOWN
<i>TRIM24</i>	TRIM24 Uncharacterized protein	Tripartite motif-containing 24; binds with nuclear receptors and mediates transcriptional control ; acts in protein phosphorylation and Ca ²⁺ homeostasis; aberrantly expressed in breast cancer; gene polymorphism correlates with renal and oral cell carcinoma	0.10	∞	UP
<i>WHSC2</i>	WHSC2 Uncharacterized protein	Wolf-Hirschhorn syndrome candidate 2; a transcription corepressor that stimulates DNA synthesis and cell proliferation; gene mutation correlates with attention deficit disorder with hyperactivity associated with multiple abnormalities	0.14	2.54	UP
<i>SAP18</i>	SAP18 Protein	Sin3-associated polypeptide 18kD; a transcriptional corepressor that represses RNA processing and induces apoptosis by forming apoptosis- and splicing-associated protein (ASAP) complex with RNPS1 and ACIN1; may play a role in histone deacetylation	0.01	0.50	DOWN
<i>SRRT</i>	SRRT Isoform 5 of Serrate RNA effector molecule homolog	Serrate RNA effector molecule homolog; interacts with the central region of FLASH; required for S phase progression; and replication-dependent transcription of histone and formation of NPAT foci	0.36	0.89	DOWN
<i>MIER1</i>	MIER1 mesoderm induction early response protein 1 isoform i	Mesoderm induction early response 1; a transcriptional repressor acting via HDAC1 recruitment; binds CREB1 to inhibit its histone acetyltransferase activity; reduced nuclear localization may correlate with development of invasive breast carcinoma	0.29	1.40	UP
<i>POLR2H</i>	POLR2H Uncharacterized protein	Polymerase RNA II DNA directed polypeptide H; a component of DNA-directed RNA polymerase II core complex that plays a role in antiapoptosis and caspase inactivation; may be involved in transcription	0.14	1.25	UP
<i>MORF4L1</i>	MORF4L1 Isoform 2 of Mortality factor 4-like protein 1	Mortality factor 4 like 1; binds to transcription factor ; acts in chromatin remodeling and histone H3-K4 demethylation; regulates cell growth; DNA repair; embryonic development; and phosphorylation; acts as an autoantigen in systemic lupus erythematosus	0.47	0.94	DOWN
<i>TOR1AIP1</i>	TOR1AIP1 Isoform 1 of Torsin-1A-interacting protein 1	Torsin A interacting protein 1; a nuclear and endoplasmic reticulum membrane associated protein that binds a variety of forms of lamin; likely component of the signaling pathway of p53-mediated transcriptional responses to DNA damage	0.06	1.78	UP
<i>PEG10</i>	PEG10 Isoform RF1 of Retrotransposon-derived protein PEG10	Paternally expressed 10; a putative transcription factor that acts in TGF-beta receptor signaling; apoptosis; embryonic placenta development; and fat cell differentiation; mRNA is aberrantly expressed in hepatocellular cancer and spontaneous miscarriages	0.46	0.91	DOWN
<i>PHF6</i>	PHF6 cDNA FLJ60207, highly similar to PHD finger protein 6	PHD finger protein 6; a nucleolar protein that may act in transcriptional regulation ; brain development; and hormone biosynthesis; gene mutations cause familial and sporadic Borjeson-Forsman-Lehmann syndrome; and several forms of leukemia	0.25	0.73	DOWN
<i>POLR2J</i>	POLR2J DNA-directed RNA polymerase II subunit RPB11-a	Polymerase RNA II DNA directed polypeptide J; a heterodimerizing protein that interacts with POLR2C; plays a role in cell proliferation and cell differentiation; may play a role in transcription from RNA polymerase II promoter	0.05	∞	UP
<i>CCNK</i>	CCNK Uncharacterized protein	Cyclin K; a putative CDK binding protein that activates CDK9 leading to phosphorylation of the RNA polymerase II large subunit; promotes RNA polymerase II transcription elongation ; increased mRNA expression is associated with glioblastoma	0.11	0.75	DOWN
<i>SMARCD2</i>	SMARCD2 Isoform 3 of SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily D member 2	SWI/SNF related matrix associated actin dependent regulator of chromatin subfamily d member 2; a component of a SWI and SNF complex that may function in chromatin remodeling and regulation of transcription through alteration of chromatin structure	0.04	0.56	DOWN
<i>ELAVL1</i>	ELAVL1 ELAV-like protein 1	ELAV-like 1; acts in posttranscriptional gene silencing ; mRNA stabilization; and myogenesis; promotes cell adhesion; proliferation; and migration; protein expression is upregulated in breast and colonic neoplasms; mRNA is upregulated in medulloblastoma	0.20	0.77	DOWN
<i>SF1</i>	SF1 Isoform 4 of Splicing factor 1	Splicing factor 1; a transcription corepressor that plays a role in spliceosome assembly; mouse Sf1 correlates with prenatal death and colon tumorigenesis	0.23	1.35	UP
<i>TCEB3</i>	TCEB3 Transcription elongation factor B polypeptide 3	Transcription elongation factor B SIII polypeptide 3; an RNA polymerase II transcription factor that mediates embryonic development; inhibits senescence; apoptosis; phosphorylation; and stress-activated MAPK cascade; regulates mitosis	0.09	0.40	DOWN
<i>UBAP2L</i>	UBAP2L Isoform 4 of Ubiquitin-associated protein 2-like	NICE-4 protein; a putative transcription factor that may be involved in epidermal differentiation	0.05	0.42	DOWN
<i>LRWD1</i>	LRWD1 Protein	Leucine-rich repeats and WD repeat domain containing 1; a component of the ORC complex that binds trimethyl lysine-modifications on histones; may function in control of chromatin-mediated regulation transcription	0.44	0.94	DOWN
<i>NFIB</i>	NFIB Isoform 1 of Nuclear factor 1 B-type	Nuclear factor 1-B; a transcription factor that binds and mediates activity of other NF1 proteins; acts in dentate gyrus; lung epithelium; and chondrocyte development; downregulated in neuroblastoma; genetic translocation correlates with multiple myeloma	0.28	0.78	DOWN
<i>AHCTF1</i>	AHCTF1P1;AHCTF1 Isoform 1 of Protein ELYS	AT hook containing transcription factor 1; a nuclear pore and kinetochore localized protein that plays a role in nuclear pore complex assembly and cytokinesis at mitosis; may play a role in regulation of transcription	0.24	1.16	UP
<i>CHD1</i>	CHD1 Isoform 2 of Chromodomain-helicase-DNA-binding protein 1	Chromodomain helicase DNA binding protein 1; a putative ATPase that binds to histone and acts in chromatin assembly; chromatin-mediated maintenance of transcription ; and protein localization to centrosome; regulates nuclear mRNA splicing via spliceosome	0.04	1.75	UP

Data S3 | SCF-based proteomics data which was used for KeyNode-mediated pathway analysis.

Protein ID	Vehicle_1	Vehicle_2	AuRF_1	AuRF_2
A0A075B6E2	30124120	31175946	72300473	34031366
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A0A0A0MSV7	3341431	3657883	1105872	1547554
A0A0A0MTP7	170758	152557	64140	80735
A0A0A6YYJ8	99223	60869	48267	63158
A0A0B4J1R6	58522	75158	52384	37280
A0A0C4DGD4	587449	448899	413226	471987
A0A0C4DGG1	2957865	1796857	8240288	2604697
A0A0C4DGH5	14538	13450	6196	11944
A0A0G2JI50	914925	710252	3631319	1007269
A0A1X7SBZ2	18469239	18484413	816575	14074907
A0A2R8Y849	4049377	3759069	6278444	6644742
A0A2U3TZH2	109290	252438	2769007	700354
A0PJX4	22361649	18520870	13887303	41917043
A6NGP5	843836	806575	982609	707599
A6NKB8	1522273	132139	1122760	1207549
A6NKD9	219272	322839	234653	357628
A6NKT7	121542	146234	166394	135978
A8K878	78588	105525	1835682	636034
B0QY89	1047546	1314212	965908	3165339
B1AH87	101203	134111	110264	127381
B1AHB1	993879	1051366	89931	294916
B1AKD8	162659	156426	253557	289399
B1AMU7	294539	294541	2014805	356766
B1ANR0	1059697	761256	829052	1321780
B1AP15	1041195	901866	2999953	930716
B3KWE1	4932310	4361695	4821614	5217200
B4DGU4	33955	75196	104429	96827
B4DJK0	55425	1266126	1598072	453381
B4DJS2	196679	122930	299204	318802
B4DLR8	395535	521181	1730675	165721
B4DQ67	28673	87250	72714	23638
B5MCL5	310563	303680	77756	79628
B7WPG3	20149	13672	10089	101720
B7Z1S6	15220327	18094586	20870942	16340838
B8ZZJ0	65249	99925	22697	69252
B9A008	53255	76241	85840	124232
C9J0X5	699875	705626	381396	480652
C9J3D7	517124	547488	93528	364276
C9J4M6	497886	58772	61581	105585
C9JA28	1305013	794129	911831	704812
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C9JC63	110043	56620	28511	145481
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C9JG97	508456	753481	624127	247127
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C9JGQ0	111297	151714	101734	434384
C9JI87	383538	383542	1429186	1364889
C9JIE4	8786	9423	25748	7741
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D6RAA6	558678	503227	672002	662052
D6RCK3	843290	569987	801888	176955
D6RCP9	1043009	433373	609361	53973
D6RDI2	436043	1131685	1644895	246708
D6REA0	20081	35117	9620	15544
D6RG13	6187078	6132568	184004	1874108
D6RG18	10758	17153	6055	7204
D6RG39	62059	51011	20009	83840
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E5RIW3	21482315	21734550	17626108	10591996
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E7EQR4	7876931	3693763	402042	4847336
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E7ES08	2596869	2596892	942040	936787
E7ES33	2905024	1741273	1705143	3485287
E7ETU9	346810	338481	1841214	361351
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E9PMW7	3599933	3599963	25036000	6497270
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E9PPG9	1948152	1613226	3309965	1055446
E9PPY3	501555	573111	130022	1054452
E9PQ14	2576079	3224064	1625535	2616567
E9PQB7	232135	235442	85501	163992
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E9PRF1	4250	8928	5951	6926
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F5H6P7	367023	367026	566720	599040
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G3XAH6	1911128	1911144	1548600	1603579
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