

Supplementary materials

Progresses and challenges in predicting protein methylation sites

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Testing dataset:

50 proteins with 155 methylated arginine sites.

50 proteins with 52 methylated lysine sites.

Table S1. Comparison of the predictive result in different methylarginine predictors with a testing dataset.

Table S2. Comparison of the predictive result in different methyllysine predictors with a testing dataset.

Testing dataset:

50 proteins with 155 methylated arginine sites:

>sp|043823|AKAP8_HUMAN A-kinase anchor protein 8 OS=Homo sapiens GN=AKAP8 PE=1 SV=1 Site of Methylarginine:188, 190, 194, 233, 277

MDQGYGGYGAWASAGPANTQGAYGTGVASWQGYENYNYYGAQNTSVTTGATYSYGPASWEA
AKANDGGLAAGAPAMHMASYGPEPCTDNSDSLIAKINQRLDMSKEGGRGSGGGGEGIQ
DRESSFRFQPFESYDSRPLPEHNPYRPSYSYDYEFDLGSDRNGSFGGQYSECRDPARER
GSLDGFMRGRGQGRFQDRSNPOTFMRSDPFVPPAASSEPLSTPWNELNYVGGRLGGPSP
SRPPSFLSQSMADPYGVMGMQAGGYDSTMPYGCGRSQPRMRDRDRPKRRGFDRFGPDG
TGRKRKQFQLYEEDTKLARVDSEGDFSENDDAAGDFRSGDEEFKGEDELCDSGRQRGEK
EDEDEDVKKRREKQRRDRTRDRAADRIQFACSVCKFRSFDDEEIQKHLQSKFHKETLRF
ISTKLPDKTVEFLQEYIVNRNKKIEKRRQELMEKETAKPKPDPFKGIGQEHFFKKIEAAH
CLACDMLIPAQPQLQRHLHSVHNRRLAAEQFKKTSLVAKSVLNNRHIVKMLEKYL
KGEDPFTSETVDPMEGDDNLGGEDKKETPEEVAADVLAEVITAAVRAVDGEGAPAPESS
GEPAEDEGPTDTAEAGSDPQAEQLLEEQVPCGTAHEKGVPKARSEAAEAGNGAETMAAEA
ESAQTRVAPAPAAADA EVEQTDAESKDAVPTE

>sp|Q9ULX6|AKP8L_HUMAN A-kinase anchor protein 8-like OS=Homo sapiens GN=AKAP8L PE=1 SV=3 Site of Methylarginine:171, 179, 185, 208, 217, 247

MSYTGfVQGSETTLQSTYSDTSAQPTCDYGYGTWNSGTNRGYEGYGYGYGQDNTTNYG
YGMATSHSWEMPSSDTNANTSASGSASADSVLSRINQRLDMVPHLETMMQGGVYSGGGE
RYDSYESCDSRAVLSELDYRSGDYSELDPMEMAYEGQYDAYRDQFRMRGNDTFGPRA
QWARDARSGRPMASGYGRMWEDPMGARGQCMGASRLPSLFSQNI IPEYGMFQGMRRGGG
AFPGGSRFGFGNGMKQMRRTWKTWTTADFRTKKKKRQGGSPDEPDSKATRTDCSDNS
DSDNDEGTEGEATEGLEGEAVEKGSRVGDEDEEGKEDGREGKEDPEKGALTTQDENGQ
TKRKLQAGKKSQDKQKQRDRMVERIQFVCSLCKYRTFYEDEMASHLDSKFHKEHFYV
GTKLPKQTADFLQYVYVTKKTEELRKTVEDLDGLIHQIYRDQDLTQE IAMEHFVKKVE
AAHCAACDLFIPMQFGIIQKHLKTMHNRNRRLMMEQSKKSSLMVARSILNNKLSKKLE
RYLKGENPFTDSPEEKEQEEAEGGALDEGAQGEAAGISEGAEGVPAQPPVPEPAPGAV
SPPPPPPEEEEEGAVPLLGGALQRQIRGIPGLDVEDDEEGGGGAP

>sp|075815|BCAR3_HUMAN Breast cancer anti-estrogen resistance protein 3 OS=Homo sapiens GN=BCAR3 PE=1 SV=1 Site of Methylarginine:442

MAAGKFASLPRNMPVNHQFPLASSMDLLSSRSPLAEHRPDAYQDVS IHGTLPRKKKGGPP
IRSCDDFSHMGTLPKSKSPRQNSPVTQDGIQESPWQDRHGETFTFRDPHLLDPTVEYVKF
SKERHIMDRTPKLLKELEELLSSEDLRSHAWYHGRIPRQVSENLVQRDGDVLRDSL
SSPGNFVLTQWKNLAQHFKINRTVLRLESEYSRVQYQFEMESFDSIPGLVRCYVGNRRP
ISQQSGAIIQPINRTVPLRCLLEHYGTSPGQAREGSLTKGRPDVAKRSLTMGGVQARE
QNLPRGNLLRNKEKSGSQPAQLDHMQDRRALSLSKAHQSESYLPIGCKLPPQSSGVDTSPC
PNSPVFRTGSEPALSPAVRRVSSDARAGEALRGSDSQCPCPKPPKCKVPFLKVPSSPS
AWLNSEANYCELNPAFATGCGRGAKLPSCAQGSHTELLTAKQNEAPGPRNSGVNYLILDD
DDRERWPPEAAAQMEKGQWQDKGEFVTPLLETVSSFRPNEFESKFLPPENKPLETAMLKRA
KELFTNNDPKVIAQHVLSDMCRVARILGVSEEMRRNMGVSSGLELITLPHGHQLRLDIE
RHNTMAIGIAVDILGCTGTLEDRAATLSKIIQVAVELKDSMGDLYSFSALMKALEMPQIT
RLEKTWTALRHQYQTAILYEKQLKPFKSKLLHEGRESTCVPPNNVSVPLLMPLVTLMERQ

AVTFEGTDMWEKNDQSCSEIMLNHLATARFMAEAADSYRMAERILAGFQPDEEMNEICKT
EFQMRLWGSKGAQVNVQTERYEKFNQILTALSRKLEPPPVKQAEI

>sp|Q6XZF7|DNMBP_HUMAN Dynamin-binding protein OS=Homo sapiens GN=DNMBP PE=1
SV=1 Site of Methylarginine:480, 488

MEAGSVVRAIFDFCPSVSEELPLFVGDIEVLAVVDEFWLLGKKEDVTGQFPSSFVEIVT
IPSLKEGERLFVCI CEFTSQELDNLPLHRGDLVILDGIPTAGWLQGRSCWGARGFFPSSC
VRELCLSSQSRQWHSQSALFQIPEYSMGQARALMGLSAQLDEELDFREGDVITIIIGVPEP
GWFEGELEGRRGIFPEGFVELLGPLRTVDESVSNGQDDCIVNGEVDTPVGEIEIGPDED
EEEPGTYGVALYRFQALEPNELDFEVGDKIRILATLEDGWLEGLKGRGTGIFPYRFVKLC
PDTRVEETMALPQEGSLARIPETSLDCLENTLGVVEQRHETSDEAEPEPDCIIEAPTSP
LGHLTSEYDTRNSYQDEDTAGPPRSPGVWEMPLATDSPTSDPTEVVNGISSQPQVPF
HPNLQKSQYYSTVGGSHPHSEQYDPLLEARTDYASLPKRMYSQKTLQKPVLPYR
GSSVSASRVVKPRQSSPQLHNLASYTKKHHTSSVYSISERLEMKPGPQAQGLVMEATHS
QGDGSTDLDLQQLIEFEKSLAGPGTEPKILRHFSIMDFNSEKDIVRGSSKLITEQE
LPERRKALRPPPPRPTVSTSPHLLVDQNLKPAPPLVVRPSRPAPLPPSAQQRNAVSP
KLLSRHRPTCETLEKEGPGHMRSLDQTSPCPLVLRVIEEMERLDMYSRAQEELNMLE
EKQDESSRAETLEDLKFCESNIESLNMELQQLREMTLLSSQSSSLVAPSGSVSAENPEQR
MLEKRAKVI EELLQTERDYIRDLEMCIERIMVPMQQAQVFNIDFEGFLGNMQMVIKVSQK
LLAALEISDAVGPVFLGHRDELEGTYKIYCQNHDEAIALLEIYEKDEKIQKHLQDSLADL
KSLYNEWGCTNYINLGSFLIKPVQRMRYPLLLMELLNSTPESHDPKVPLTNAVLAVKIEI
NVNINEYKRRKDLVLKYRKGDEDSLMEKISKLNHSIIKKSNRVSSHLLKHLTGFAPQIKD
EVFEETEKNFRMQRERLIKSFIRDLSLYLQHIREACVKVVAASVMWDVCMERGHRLDLEQF
ERVHRYISDQLFTNFKERTERLVISPLNQLLSMFTGPHKLVQKRFKLLDFYNCTERA EK
LKDKKTLEELQSARNNYEALNAQLDELKPFHQYAQGLFTNCVHGYAEAHCDFVHQALEQ
LKPLLSLLKVAGREGNLIAIFHEEHSRVLQQLQVFTFFPESLPATKKPFERKTIDRQSAR
KPLGLPSYMLQSEELRASLLARYPPEKLFQAERNFNAQDLDVSLLEGDLVGVIKKKDP
MGSQNRWLIDNGVTKGFVYSSFLKPYNPRRSHSDASVGSHTSEHGSPPRFRQNSG
STLTFNPSSMAVSFTSGSCQKQPQDASPPPKECDQGTLSASLNPSNSESSPSRCPSPDS
TSQPRSGSDADVARDVKQPTATPRSYRNRHPEIVGYVPGRNGQSQDLVKGCARTAQAP
EDRSTPEPDGSEAEGNQVYFAVYTFKARNPNELSVSANQKLIKLEFKDVTGNTEWVLAEVN
GKKGYVPSNYIRKTEYT

>sp|Q9Y4H2|IRS2_HUMAN Insulin receptor substrate 2 OS=Homo sapiens GN=IRS2 PE=1
SV=2 Site of Methylarginine:412, 429

MASPPRHGPPGPASGDGPNLNNNNNNHNSVRKCGYLKQKQKHGKRRFFVLRGPGAGGDEA
TAGGGSAPQPPRLEYESEKKWRSKAGAPKRVIALDCCLNINKRADAKHKYLIALYTKDE
YFAVAANEQE QEGWYRALTDLVSEGRAAGDAPPAAPAAASCSASLPGALGGSAGAAGA
EDSYGLVAPATAAYREVWQVNLKPKGLGQSKNLTG VYRLCLSARTIGFVKLNCEQPSVTL
QLMNIRRCGHSDSFFFI EVGRSAVTGPGELWMQADDSVVAQNIHETILEAMKALKELFEF
RPRSKSQSSGSSATHPI SVPGARRHHHLVNLPPSQTGLVRRSRTDSLAATPPAAKCSSCR
VRTASEGDGGAAGAAAAGARPVSVAGSPLSPGPVVRAPLSRSHTLSGGCGGRGSKVALLP
AGGALQHSRSMMPVAHSPAATSPGSLSSSSGHGSGSYPPPPGPHPLPHPLHHGPGQR
PSSGSASASGSPDPGFMSLDEYGSPPDLRAFCSHRSNTPEIAETPPARDGGGGGEFY
GYMTMDRPLSHCGRSYRRVSGDAAQDLDRGLRKRYSLTTPARQRPVPQPSASLDEYTL
MRATFSGSAGRLCPSPASSPKVAYHPYEDYGDIEIGSHRSSSSNLGADDGYMPMPGA

ALAGSGSGSCRSDDYMPMPSPASVSAPKQILQPRAAAAAAAAAVPSAGPAGPAPTSAAAGRTF
PASGGGYKASSPAESSPEDSGYMRMWCCKLSMEHADGKLLPNGDYLNVSPSDAVTTGTP
PDFSFAALHPGGEPLRGVPGCCYSSLPRSYKAPYTCGGSDQYVLMSSPVGRILEEERLE
PQATPGPSQAASAFGAGPTQPPHPVVPSPVPSGGRPEGFLGQRGRAVRPTRLSSLEGLPS
LPSMHEYPLPPEPKSPGEYINIDFGEPGARLSPPAPPLLASAASSSSLLSASSPASSLGS
GTPGTSSDSRQRSPLSDYMNLDFFSSPKSPKPGAPSGHPVGSGLDGLLSPEASSPYPLPPR
PSASPSSSLQPPPPPPAPGELYRPPASAVATAQGPAAASSLSSDTGDNGDYTEMAFGVA
ATPPQPIAAPPKPEARVASPTSGVKRLSLMEQVSGVEAFLQASQPPDPHRGAKVIRADP
QGGRRRHSSSETFSSSTTTVTPVSPSFAHNPKRHNSASVENVSLRKSSEGGVGVGPGGGDEP
PTSPRQLQAPPLAPQGRPWTPGQPGGLVGCPSGGSPMRRETSAGFQNLNYIAIDVRE
EPGLPPQPQPPPPPLQPGDKSSWGRTRSLGGLISAVGVGSTGGGCGPGPGALPPANTY
ASIDFLSHHLKEATIVKE

>sp|Q15654|TRIP6_HUMAN Thyroid receptor-interacting protein 6 OS=Homo sapiens
GN=TRIP6 PE=1 SV=3 Site of Methylarginine:25, 111, 179, 205, 217, 236, 238

MSGPTWLPPKQPEPARAPQGRAIPRGTPGPPPAHGAALQPHPRVNFCLPSEQCYQAPGG
PEDRGPAAVWVSHGVLQHTQGLPADRGGLRPGSLDAEIDLLSSTLAELNGGRGHASRRPDR
QAYEPPPPPAYRTGSLKPNPASPLPASPYGGPTPASYTTASTPAGPAFPVQVKAQPVVRG
CGPPRRGASQASGPLPGPHFPLPGRGEVWGPYRSQREPGPAKEEAAGVSGPAGRGRGG
EHGPQVPLSQPPEDELDRITKLVHDMNHPPSGEYFGQCGGCGEDVVDGAGVVALDRVF
HVGCFVCSTCRAQLRGQHFYAVERRAYCEGCYVATLEKCATCSQPILDRILRAMGKAYHP
GCFTCVVCHRGLDGIPTVDATSIHCIEDFHRKFAPRCSVCGGAIMPEPGQEETVRIVA
LDRSFHIGCYKCEECGLLSSEGECCGCYPLDGHILCKACSAWRIQELSATVTTDC

>sp|Q8TF74|WIPF2_HUMAN WAS/WASL-interacting protein family member 2 OS=Homo
sapiens GN=WIPF2 PE=1 SV=1 Site of Methylarginine:37, 356, 430

MPIPPPPPPPGPPPPPTFHQANTEQPKLSRDEQRGRGALLQDICKGTKLKKVTNINDRS
APILEPKKSSGGYGSAGALQPKGGLFQGGVLLKLRPVGAKDGSENLAGKPALQIPSSRA
AAPRPPVSAASGRPQDDTSSRASLPDLSRPNTTSSGTMKSSSAPPPP
PPGRRANAPPTPLMHSSKAPAYNREKPLPPTPGQLHPGREGPPAPPVKKPPSPVNIR
TGPSGQSLAPPPPYRQPPGVPNGPSSPTNESAPQLRHNLSLHRKTPGPVRLAPPPT
SASPSLLSNRPPPARPPSRGAAPPPPPVIRNGARDAPPPPPYRMHSEPPSRGKPP
PPPSRTPAGPPPPPPPLRNGHRDSITTVRSFLDDFESKYSFHPVEDFPAPEEYKHFQRI
YPSKTNRARAGAPPLPILR

>sp|Q99959|PKP2_HUMAN Plakophilin-2 OS=Homo sapiens GN=PKP2 PE=1 SV=2 Site of
Methylarginine:46, 125

MAAPGAPAEYGYIRTVLGGQILGQLDSSSLALPSEAKLKLGGSSGRGGQTVKSLRIQEQV
QQTLARKGRSSVGNLHRTSSVPEYVYNLHLVENDFVGRSPVPKTYDMLKAGTTATYE
GRWGRGTAQYSSQKVEERSLRHPLRRLLEISPDSSPERAHYTHSDYQYSQRSQAGHTLHH
QESRAALLVPPRYARSEIVGVSRAQTTSRQRHFDYHRQYQHGSVSDTVFDSIPANPAL
LTYPRPGTSRSMGNLLEKENYLTAGLTVGQVRPLVPLQVPTQNRASRSSHQSSFHSTRT
LREAGPSVAVDSSGRRHLTVGQAAAGSGNLLTERSTFTDSQLGNADMEMTLERAVSML
EADHMLPSRISAAATFIQHECFQKSEARKRVNQLRGILKLLQLLVQKQVEDVQRAVCGALR
NLVFEDNDNKLEVAELNGVPRLLQVLKQTRDLETKKQITDHTVNLRSRNGWPGAVAHACN
PSTLGGQGGRI TRSGVRDQPDQHGLLWNLSSNDKLNLMITEALLTLTENIIPFSGWPE
GDYPKANGLLDFDIFYNVTGCLRNMSSAGADGRKAMRRCDGLIDSLVHYVRGTIADYQPD

DKATENCVCILHNL SYQLEAELPEKYSQNIYIQNRNIQTDNNSIGCFGSRSRKVKEQYQ
DVPMPPEEKS NPKGV EWLWHSIVIRMYLSLIAKSVRNYTQEASLGALQNLTAGSGPMPTSV
AQTVVQKESGLQHTRKMLHVGDP SVKKT AISLLRNLSRNLSLQNEIAKETLPDLVSIIPD
TVPSTDLLIETTASACYTLNNI IQNSYQNARDLLNTGGIQKIM AISAGDAYASNKASKAA
SVLLYSLWAHTELHHAYKKAQFKKTD FVNSRTAKAYHSLKD

>sp|Q9UKV3|ACINU_HUMAN Apoptotic chromatin condensation inducer in the nucleus
OS=Homo sapiens GN=ACIN1 PE=1 SV=2 Site of Methylarginine:8, 14, 29

MWRRKHPRTSGGTRGVLSG NRGVEYSGRGLGT FEGRWKLPKMPEAVGTD PSTRKMA
ELEEVTLDGKPLQALRVTDLKAAL EQRGLAKSGQSALVKRLKGALML ENLQKHSTPHAA
FQPNQIGEMSQNSFIKQYLEKQQELLRQRLE REAREAAELEEASAESEDEMIHPEGVA
SLLPPDFQSSLERPELELSRHSPR KSSSISEEKGDS DDEKPRKGERRSSRVQARA AKLS
EGSQPAEEEDQETPSRNLRVRAD RNLT EEEEEEEEEEDDEEEEGDDEGQKSREAPI
LKEFKEEGEEIPRVKPEEMMDERPKTR SQEQEVLERGGRFTRSQEEARKSHLARQQEKE
MKTTSPL EEEEREIKSSQGLKEKSKSPSP PRLTEDRKKASLVALPEQTASEEETPPPLLT
KEASSPPHPQLHSEEEIEPMEGPAPA VLIQLSPPNTDADTRELLVSQHTVQLVGGLSPL
SSPSDTKAESPAEKVPEESVLPVQKSTLADYSAQKDLEPESDRSAQPLPLKIEELALAK
GITEECKQPSLEKQEGRRASH TLLPSHRLKQSADSSSRSSSSSSSSSRSRSPDSSG
SRSHSPLRSKQRDVAQARTHANPRGRPKMGRSTSESRSRSRSRSASSNSRKSLSPGV
SRDSSTSYTETKDPSSGQEVATPPVPQLVCEPKERTSTSSSSVQARRLSQPESA EKHVT
QRLQPERGSPKKCEAAEAEPAAATQPQTSETQTS HLPESERIHHTVEEKEEVTMDTSEN
PENDVPEPPMPIADQVSNDDRPEGSVEDEEKKESL PKSFKRKISVVSATKGV PAGNSDT
EGGQPGRRRWGASTATTQKKPSISITTESL KSLIPDIKPLAGQEAVVDLHADD SRISED
ETERNGDDGTHDKGLKICRTVTQV VPAEGQENGQRE EEEEEKEPEAEPVPPQVSVEVAL
PPPAEHEVKKVTLGDTL TRRSISQQKSGV SITIDDPVRTAQVPSPPRGKISNIVHISNLV
RPFTLGQLKELLGRTGTLVEEAFWIDKIKSHCFV TYSTVEEAVATRTALHG VKWPQSNPK
FLCADYAEQDEL DYHRLLVDRPSETKTEE QGIPRPLHPPPPVQPPQHPRAEQREQER
AVREQWAEREREMERRERTRSEREWDRDKVREGPRSRSRDRRRKERAKSKEKKSEKKE
KAQEPPAKLLDDLFRKTKAAPCIYWLPLTDSQIVQKEAERAERAKEREKRRKEEEEEQ
KEREKAERERNRQLEREKRREHSRERDRERERERERDRGDRDRDRERDRERDRDRD
TKRHSRSRSTPVRDRGGR

>sp|Q9BZZ5|API5_HUMAN Apoptosis inhibitor 5 OS=Homo sapiens GN=API5 PE=1 SV=3
Site of Methylarginine:500, 504, 507, 510

MPTVEELYRNYGILADATEQVGGHKDAYQV ILDGVKGGTKEKRLAAQFIPKFFKHFP ELA
DSAINAQLDLCEDEDVSIRRQAIKELPQFATGENLPRVADILTQLLQTDDSAEFNLV NNA
LLSIFKMDAKGTLGGLFSQILQGEDIVRERAIKFLSTKLTLPDEVLTK EVEELILTESK
KVLEDVTGEEFVLFMKILSGLKSLQTVSGRQQLV ELVAEQADLEQTFNPSDPDCVDRLLQ
CTRQAVPLFSKNVHSTRFVYFCEQVLPNLGTLTPVEGLDIQLEVLKLLAEMSSFCGDM
EKLETNLRKLFDKLLEYMPLPPEEAENGENAGNEEPKLF SYVECLLYSFHQLGRKLPDF
LTAKLNAEKLKDFKIRLQYFARGLQVYIRQLRLALQGKTGEALKTEENKIKVVALKITNN
INVLKDLFHIPPYSYKSTVTL SWKPVQKVEIGQKRASEDTTSGSPPKSSAGPKRDARQI
YNPSPGKYSSNLGNFNYEQRGAFRGSRGGRGWGTRGNRSRGRLY

>sp|Q9NQS1|AVEN_HUMAN Cell death regulator Aven OS=Homo sapiens GN=AVEN PE=1
SV=1 Site of Methylarginine:28, 37, 50

MQAERGARGGRPRGRPGDRHSERPGAAA AVARGGGGGGGGGGRRGRGRGRGRFR

GARGGRGGGAPGRSRREPGGWGAGASAPVEDDSAETYGEENDEQGNYSKRKIVSNWDR
YQDIEKEVNNESGESQRGTDFSVLLSSAGDSFSQFRFAEEKEWDSEASCPKQNSAFYVDS
ELLVRALQELPLCLRLNVAELVQGTVPLEVPQVKPKRTDDGKGLGMQLKGPLPGGRGP
IFELKSVAAGCPVLLGKDNPSPGSRDSQKPTSPLQSAGDHLEELDLLLNLDAPIKEGD
NILPDQTSQDLKSKEDGEVVQEEEVCAKPSVTEEKNMEPEQPSTSKNVTEEELEDWLDSM
IS

>sp|095817|BAG3_HUMAN BAG family molecular chaperone regulator 3 OS=Homo
sapiens GN=BAG3 PE=1 SV=3 Site of Methylarginine:121,261

MSAATHSPMMQVASNGDRDPLPPGWEIKIDPQTGWPFVVDHNSRTTWNDRVPSEGPK
ETPSSANGPSREGSRLPPAREGHPVYPQLRPGYIPIVPLHEGAENRQVHPFHVYPQPMQ
RFRTEAAAAAPQRSQSLRGMPETTQPKQCGQVAAAAAAPPASHGPERSQSPAASDCS
SSSSASLPSGRSSLGSHQLPRGYISIPV IHEQNVTRPAAQPSFHQAQKTHYPAQQGEY
QTHQPVYHKIQGDDWEPRPLRAASPFRSSVQGASSREGSPARSSTPLHSPSPIRVHTVVD
RPQQPMTHTRETAPVSQPENKPEKPGVGPPELPPGHIPIQVIRKEVDSKPVSKPPPPSE
KVEVKVPPAPVPCPPSPGPSAVPSSPKSVATEERAAPSTAPAEATPPKPGAEAPPKHP
GVLKVEAILEKVQGLEQAVDNFEGKTKDKKYLMIIEEYLTKEALLDSVDPEGRADVQRAR
RDGVRKVQTIKLEKKAIDVPGQVQVYELQPSNLEADQPLQAIMEMGAVAADKGGKKNAG
NAEDPHTETQQPEATAAATSNPSSMTDTPGNPAAP

>sp|095429|BAG4_HUMAN BAG family molecular chaperone regulator 4 OS=Homo
sapiens GN=BAG4 PE=1 SV=1 Site of Methylarginine:40,51,53,108,185,201

MSALRRSGYGPSDGSYGRYYGPGGGDVPVHPPPLYPLRPEPPQPPISWRVRRGGPAET
TWLGEGGGGDYPSGGAWPEPGRAGGSHQEPPYPSYNSNYWNSTARSRAPYPSTYPVR
PELQGGSLNSYTNAYGPTYPPPGANTASYSGAYYAPGYTQTSYSTEVPSTYRSSGNP
TPVSRWIYPQQDCQTEAPPLRGQVPGYPPSQNPGMTLPHYPYGDGNRSVPQSGPTVRPQE
DAWASPGAYGMGGRYWPSSAPSAPPGNLYMTESTSPWPSSGSPQSPSPVQPKDSSY
PYSQSDQSMNRHNFPCSVHGYESSGTVNNDSDLLDSQVQYSAEPQLYGNATSDHPNNQD
QSSSLPEECVPSDESTPPSIKKI IHVLEKVQYLEQEVEEFVGGKTKKAYWLEMLTKEL
LELDSVETGGQDSVRQARKEAVCKIQAILEKLEKGL

>sp|Q8N163|CCAR2_HUMAN Cell cycle and apoptosis regulator protein 2 OS=Homo
sapiens GN=CCAR2 PE=1 SV=2 Site of Methylarginine:16,180,184

MSQFKRQRINPLPGRNFGTASTSLLGPPPGLLTPPVATELSQNRHLQGGEKQRFVFTG
IVTSLHDYFGVDEEVFFQLSVVKGRLPQLGEKVLKAAAYNPGQAVPWNVAVKVQTLNQP
LLKSPAPLLHVAALGQKQILGAQPQLIFQPHRIPPLFPQKPLSLFQTSHTLHLSHLNR
FPARGPHGRLDQGRSDDYDSSKRRKQRAGGEPWGAKKPRHDLPPYRVHLPYTVDSPICDF
LELQRRYRSLVPSDFLSVHLSWLSAFPLSQPFSLHHSRIQVSSEKEAAPDAGAEPITA
DSDPAYSSKVLSSPGLEELYRCMLFVDDMAEPRETPEHPLKQIKFLLGRKEEEAVLV
GGEWSPSLDGLDPPQADPQVLRVTAIRCAQAQTGIDLSGCTKWWRFAEFQYLQPGPPRRLQ
TVVVYLPDVTWIMPTLEWEALCQQAEEAAPPTQEAQGETEPTAQAPDALEQAADTSRR
NAETPEATTQETDLDLPEAPPPLEPAVIARPGCVNLSLHGIVEDRRPKERISFEVMVL
AELFLEMLQRDFGYRVYKMLLSLPEKVVSPPEPEKEEAAKEEATKEEEA IKEEVVKEPKD
EAQNEGPATESEAPLKEDGLLPKPLSSGEEEEKPRGEASEDLCEMALDPELLLLRDDGE
EEFAGAKLEDSEVRSVANSQSEMEFSSLQDMPKELDPSAVLPLDCLLAFVFFDANWCGYL
HRRDLERILLTLGIRLSAEQAKQLVSRVVTQNICQYRSLQYSRQEGLDGGLPEEVLFGNL
DLLPPPGKSTKPGAAPTEHKALVSHNGSLINVGSLQRAEQQDSGRLYLENKIHTLELKL

EESHNRFSATEVTNKTLAAEMQELRVRLAEAEETARTAERQKSQLRLLQELRRRLTPLQ
LEIQRVVEKADSWVEKEEPAPSN

>sp|Q8TAP9|MPLKI_HUMAN M-phase-specific PLK1-interacting protein OS=Homo sapiens GN=MPLKIP PE=1 SV=1 Site of Methylarginine:57, 59, 68, 126

MQRQNFPPPTPPYPGPGGGWGSSSFRGTPGGGPRPPSPRDGYGSPHHTPPYGPRSRP
YGSSHSRPHGGSFPGGRFGSPSPGGYPGSYSRSPAGSQQFQGYSPGQQQTHPQGSPTST
PFGSGRVREKRMSNELENYFKPSMLEDPWAGLEPVSVVDISQQYSNTQTFTGKKGRYFC

>sp|Q92530|PSMF1_HUMAN Proteasome inhibitor PI3l subunit OS=Homo sapiens GN=PSMF1 PE=1 SV=2 Site of Methylarginine:205, 231

MAGLEVLFAASAAPAITCRQDALVCFLHWEVVTGHYFGLGVGDQPGPNDKKSSELLPAGWNN
NKDLYLRYEYKDGSRKLLVKAITVESSMILNVLEYGSQQVADLTNLDDYIDAHLGDF
HRTYKNSEELRSRIVSGIITPIHEQWEKANVSSPHREFPPATAREVDPLRIPPHHPTSR
QPPWCDPLGPFVVGEDLDPFGPRRGGMIVDPLRSGFPRALIDPSSGLPNRLPPGAVPPG
ARFDPFGPIGTSPPGPNPDHLPPPYYDDMYL

>sp|Q6Y7W6|PERQ2_HUMAN PERQ amino acid-rich with GYF domain-containing protein 2 OS=Homo sapiens GN=GIGYF2 PE=1 SV=1 Site of Methylarginine:107, 118, 120, 149

MAAETQTLNFGPEWLRALSSGGISITSPPLSPALPKYLADYRYGREMLALFLKDNKIPS
DLLDKEFLPILQEEPLPLALVPFTEEEQRNFSMSVNSAAVLRLTGRGGGGTVVGAPRGR
SSSRGRGRGRGECGFYQRSFDEVEGVFGRGGGEMHRSQSWEERGDRRFKPKRQKDVGRP
NFEEGGPTSVGRKHFEIRSESENWRIFREEQNGEDEDGGWRLAGSRRDGERWRPHSPDGP
RSAGWREHMERRRFEFDFRDRDDERGYRRVRSVSGSIDDDRSLPEWCLEDAEEEMGTF
DSSGAFSLKVKQKEPIPEEQEMDFRPVDEGECSDEGSHNEEAKPEPKTKNKEGEKTD
RVGVEASEETPQTSSSSARPGTPSDHQSQEASQFERKDEPKTEQTEKAEETRMENSLPA
KVPSRGDEMADVQQPLSQIPSDTASPLLILPPVPNPSPTLRPVETPVVQVGMGVSST
EPDDEEGLKHLEQQAEMVAYLQDSALDDERLASKLQEHRAKGVSIPLMHEAMQWYYKD
PQGEIQGPFNNQMAEWFQAGYFTMSLLVKRACDESFQPLGDMKMWGRVPFSPGPAPP
HMGELDQERLTRQQELTALYQMQLQYQQFLIQQQYAQVLAQQQKAALSSQQQQQLALLL
QQFQTLKMRISDQNIIPSVTRSVSVPDTGSIWELQPTASQPTVWEGGSVWDLPLDTTTPG
PALEQLQQLEKAKAAKLEQERREAEMRAKREERKREELRRQQEEILRRQQEEERKRR
EEEELARRQEEALRRQREQEIALRRQREERQQQEEALRRLEERRREERKQEEELL
RKQEEEAAKWAREEEEAQRRLLENRLMEEEAARLRHEEERKRKELEVQRQKELMRQRQ
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QQHQPNRARNNTHSNLHTSIGNSVWGSINTGPPNQWASDLVSSIWSNADTKNSNMGFWD
DAVKEVGPRNSTNKNKNNASLSKSVGVSNRQNKVVEEELKLLKLFQGVNKAQDGFTQWCE
QMLHALNTANNLDVPTFVSFLKEVESPYEVHDYIRAYLGDTSEAKEFAKQFLERRAKQKA
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GKKKKKQKMRADPSLLGFSVNASSERLNMGEIETLDDY

>sp|Q92686|NEUG_HUMAN Neurogranin OS=Homo sapiens GN=NRGN PE=1 SV=1 Site of Methylarginine:38, 68

MDCCTENACSKPDDILDIPDDPGANAAAAKIQASFRGHMARKKIKSGERGRKGPGGG
PGGAGVARGGAGGPGSGD

>sp|P04792|HSPB1_HUMAN Heat shock protein beta-1 OS=Homo sapiens GN=HSPB1 PE=1 SV=2 Site of Methylarginine:5, 12, 56

MTERRVPFSLLRGPSWDPFRDWPYHPSRLFDQAFGLPRLPEEWSQWLGSSWPGYVRPLPP
AAIESPAVAAPAYSRALSRQLSSGVSEIRHTADRWRVSLDVFHAPDELTVKTKDGVVEI
TGKHEERQDEHGYISRCFTRKYTLPPGVDPTQVSSLSPEGLTVEAPMPKLATQSNEIT
IPVTFESRAQLGGPEAAKSDETAAK

>sp|Q6PJG2|EMSA1_HUMAN ELM2 and SANT domain-containing protein 1 OS=Homo
sapiens GN=ELMSAN1 PE=1 SV=2 Site of Methylarginine:227, 447

MNLQAQPKAQNKRRCLFGGQEPAPKEQPPPLQPPQSIIRVKEEQYLGHEGPGGAVSTSQ
PVELPPSSLALLNSVYGPERTSAAMLSQQVASVKWPNSVMAPGRGPERGGGGVSDSS
WQQQPGQPPHSTWNCHSLSLYSATKGSHPGVGVPTYYNHPEALKREKAGGPQLDRYVR
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AAFPPKQKQQQQQPPQQQQQQAALPQMPLFENFYSMPQQPSQQPQDFGLQPAGPLGQSH
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DGAGTQPGQEATGNLFLHHPWLQQPPGSLGQHPHEALGFPELRESQLLPDGERLAPNG
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KQRPRPEPLIIPTKAGTFIAPPVYSNITPYQSHLRSPVRLADHPSEFSFELPPYTPPPIL
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PRINVGSRFQAEIPLMRDRALAAADPHKADLVWQPWEDLESSREKQRQVEDLLTAACSSI
FPGAGTNQELALHCLHESRGDILETLNKLKPLRPHNPLATYHYTGSDQWMAERKL
FNKGIAYKKDFLVLQKLIQTKTVAQCVFYYTYKKQVKIGRNGTLTFGDVDTSDKSAQ
EEVEVDIKTSQKFPVPLPRRESPSEERLEPKREVKEPRKEGEEVPEIQEKKEEKEGRE
RSRRAAAVKATQTLQANESASDILILRSHESSNAPGSAGGQASEKPREGTGKSRRALPFSE
KKKKTETFSKTQNQENTFPCKKCGR

>sp|P62633|CNBP_HUMAN Cellular nucleic acid-binding protein OS=Homo sapiens
GN=CNBP PE=1 SV=1 Site of Methylarginine:27, 30, 79

MSSNECFKGRSGHWARECPTGGGRGRGMRSRGRGGFTSDRGFQVSSSLPDICYRCGES
GHLAKCDLQEDACYNCGRGGHIAKDCKEPREREQCCYNCGKPGHLARDCDHADEQKCY
SCGEFGHIQKDKTKVYCYRCGETGHVAINCSKTSEVNCYRCGESGHLARECTIEATA

>sp|Q6ZRQ5|MMS22_HUMAN Protein MMS22-like OS=Homo sapiens GN=MMS22L PE=1 SV=3
Site of Methylarginine:366, 374

MENCSAASTFLTDSLELELGTWCKPPYFSCAVDNRRGGKHFSGESYLCGALKRLILNL
DPLPTNFEEDTLEIFGIQWVTETALVNSSRELFHLFRQQLYNLETLLQSSCDFGKVSTLH
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IGHLSELPSVNIAGFVNQNIKLFPPSWHLLHLHLDIHVLVLEILYMLGEKQVQVYGHQ
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FYKFDHRHVPDEMRRKVESNWNFVEELLKKSISVQGVILEEQRLMYLHCCLTLCDFWEPNI
AIVTILWEYYSKNLSSFSISWLPFKGLANTMKSPLSLEMVKTCCCDKQDQELYKSSSS
YIFLCLAKVVKAMKSNPHPWKQVKGRIYSKFHQKRMEELETEVGLQNFSLFLLAA
VAEVEDVASHVLDLLNFKPAFVTSQRALIWKGHMAFLMYAQKNLDIGVLAEFSCAFR
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RESELRTVLSFLQAVLARIRSMHQQLCQELQRDNDVDFVQSSLSAKERHLAAVASALWRH
FFSFLKSQRMSQVVPFSQLADAAAADFTLLAMDMPSTAPSDFPQPVISIIQLFGWDDIIC

PQVVARYLSHVLQNSTLCEALSHSGYVSFQALTVRSWIRCVLQMYIKNLSGPDDLLIDKN
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NVQTLSDKSAMVTKSLEYLGEVLKYIKPYLGKKVFSAGLQLTYGMMGILVKSWAQIFATS
KAQKLLFRIIDCLLLPHAVLQQEKELPAPMLSAIQKSLPLYLQGMCI VCCSQNPAYLN
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KGSSPPRLASILAFILQLFKETNTDIYEVELLLPGILKCLVLVSEPQVKRLATENLQYM
VKACQVGSEEEPSSQLTSVFRQFIQDYGMRYYYQVYSILETVATLDQQVVIHLISTLTQS
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>sp|Q9BRQ0|PYG02_HUMAN Pygopus homolog 2 OS=Homo sapiens GN=PYG02 PE=1 SV=2

Site of Methylarginine:105, 131

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QMMPGVGGFGPMISPTMGQPRAELGPPSLSRFAQPGAPFGPSPLQRPGQGLPSLPPN
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MTESAYGLLTTEASAVWACDLCLKTKEIQSVYIREGMQLVAANDG

>sp|P18583|SON_HUMAN Protein SON OS=Homo sapiens GN=SON PE=1 SV=4 Site of

Methylarginine:936, 943, 950, 997, 1015, 1090, 1112

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KKKEKEKYYKRQPEESESKTKSHDDGNIDLESDFLKFDEPSAVALLELPTRAFSPSETN
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ILDSFAAAVPTTTLVLKSSEPVVMSVEYQMKSVLKSVESTSPEPSKIMLVEPPVAKVL
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STPVPELPGPPATAVPELPGPSVTPVPQLSQELPGLPAPSMGLEPPQEVPEPPVMAQELP
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EATMVLELPGQPVAATTALELPGQPSVTGVPELPGPLSATRALELSGQPVATGALELPGPL
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SSPSEESVSQPEPPVSQSEISEPSAVPTDYSVSASDPSVLVSEA AVTVPEPPPEPESSIT
LTPVESAVVAEEHEVPERPVTCMVSETPAMSAEPTVLASEPPVMSETAETFD SMRASGH
VASEVSTSLVPAVTPVLAESILEPPAMAPESSAMAVLESSAVTVLESSTVTVLESST
VTVLEPSVVTVPPEPPVAEPDYVTIPVPVVSALEPSVPVLEPAVSVLQPSMIVSEPSVSV
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GMQEIALHSGEEPHAEHLKGDIFYESEHGINIDLNINNHLIAKEMEHNTVCAAGTSPVGE
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SLVNKYDVDLSLTTQDTEHDMVISTSPSGGSEADIEGLPAKDIHLDLPSNNLVSKDTE
EPLPVKESDQTLAALLSPKESGGGEKVPKPPKETLPDSGFSANIEDINEADLVRPLLPK
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>sp|Q14966|ZN638_HUMAN Zinc finger protein 638 OS=Homo sapiens GN=ZNF638 PE=1
SV=2 Site of Methyarginine:33, 41, 47, 49, 54

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SKAVEIVTSTSAKTGQAKASVAVKNKSTGKSASSVKS VVTAVKGNKASIKTAKSGGK
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PKIDLPEVQIEHDPELEKESPLKNSPIDESEVQTATDPSVKPNELEEEESTPSIQTETL
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NQQMFSNDLEKKGAEIINPKTALLPSDSVFAEERNLKGILEESPSEAEDFISGITQTMVE
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>sp|043896|KIF1C_HUMAN Kinesin-like protein KIF1C OS=Homo sapiens GN=KIF1C PE=1
SV=3 Site of Methylarginine:948, 958, 963, 1041

MAGASVKVAVRVRPFNARETSQDAKCVSMQGNNTTSIINPKQSKDAPKSFTFDYSYWSHT
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RLIRELQEEVARLRELLMAQGLSASALEGLKTEEGSVRGALPAVSSPPAPVSPSSPTTHN
GELEPSFSPNTESQIGPEEAMERLQETEKI I AELNETWEEKLRKTEALRMEREALLAEMG
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EQARLERERGVPPPPGPPSEPVDWNFAQKELLEQQGIDIKLEMEKRLQDLENQYRKEKEE
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GLRRPPARFVPPHDKLRFPFKSNPQHRESWPGMGSGEAPTLPQPEEVTPHPATPARRP
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YTTPPRMRQRSAPDLKESGAAV

>sp|P08727|K1C19_HUMAN Keratin, type I cytoskeletal 19 OS=Homo sapiens GN=KRT19
PE=1 SV=4 Site of Methylarginine:7, 24, 32, 43, 51

MTSYSYRQSSATSSFGGLGGGSRVFGPGVAFRAPS IHGGSGGRGVSVSARFVSSSSSGA
YGGYGGVLTASDGLLAGNEKLTMQNLNDRLASYLKVRALAEANGELEVKIRDWYQKQG
PGPSRDYSHYTTIQDLRDKILGATIENSRIVLQIDNARLAADDFRTKFETEALRMSVE
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QEYQRLMDIKSRLEQEIATYRSLEGGQEDHYNNLSASKVL

>sp|P05787|K2C8_HUMAN Keratin, type II cytoskeletal 8 OS=Homo sapiens GN=KRT8
PE=1 SV=7 Site of Methylarginine:18, 23, 32, 40, 47

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LPK

>sp|Q7Z736|PKHH3_HUMAN Pleckstrin homology domain-containing family H member 3
OS=Homo sapiens GN=PLEKHH3 PE=1 SV=2 Site of Methylarginine:638,642

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EQALPDSELAEYARFIRKALGRTRGRELVP SLAEISALSQRQELLCTVHCPGAGACAVAI
DSHTTAGEVARELVGRLGLARSNAFALYEQRGAQERALAGGTLVADVLTRFENLAAEEA
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ALRVGESQLLQSPQVEEIMQLVNAYLANPSPERPCSSSSPPCQDLPDTSPPSQRPGLDE
PQQQSGCLGQLQD

>sp|060293|ZC3H1_HUMAN Zinc finger C3H1 domain-containing protein OS=Homo
sapiens GN=ZFC3H1 PE=1 SV=3 Site of Methylarginine:95,99

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LIAMEKRRQLKLEYEYALKIQKLEARALKAKEQQNISPVVEEPEFSLPQPSLHDLTQD
KLTLTDEENDVDDEILSGSSRERRRSFLESNYFTKPNLKHTDTANKECINKLNKNTVEKP
ELFLGLKIGELQKLYSKADSLKQLILKTTTGITEKVLHGQEISVDVDFVTAQSKTMEVKP
CPFRPYHSPLL VFKSYRFSPPYRTKEKLP LSSVSYSNMIEPDQCFCRFDLTGTCNDDDCQ
WQHIQDYTLRKLQFQDILSYNLSLIGCAETSTNEEITASAEKYVEKLFVGNKDRMSMDQ
MAVLLVSNINESKGHTPPFTTYKDKRKKWPKFWRKPI SDNSFSSDEEQSTGPIKYAFQPE

NQINVPALDVTVPDDVRYFTNETDDIANLEASVLENPSHVQLWLKLAYKYLNQNEGECS
ESLDSALNVLARALENNKDNPEIWCHYLRLFSKRGTKDEVQEMCETAVEYAPDYQSFWTF
LHLESTFEEDYVCCERMLEFLMGAAKQETSNI LSFQLEALLFRVQLHIFTGRCQSALAI
LQNALKSANDGIVAEYLKTSRCLAWLAYIHLIEFNILPSKFYDPSNDNPSRIVNTESFV
MPWQAVQDVKTNPDMLLAVFEDAVKACTDESLAVEERIEACLPLYTNMIALHQLLERYEA
AMELCKSLLESCPINCLLEALVALYLQTNQHDKARAVWLTAFEKNPQNAEVFYHMCKFF
ILQNRGDNLLPFLRKF IASFFKPGFEKYNNLDLFRYLLNIPGPIDIPSR LCKGNFDDDMF
NHQVPYWLVIYCLCHPLQSSIKETVEAYEAALGVAMRCDIVQKIWM DYLVFANNRAAGSR
NKVQEFKFFTDL VNRCLVTVPARYPIPFSSADYWSNYEFHNRVIFFYLSVCPKTQHSKTL
ERFCSVMPANGLALRLLQHEWEESNVQILKLQAKMFTYNIPTCLATWKIATAAEIVLKG
QREVRHLYQRALQKLP L CASLWKDQLLFEASEGGKTDNLRKLVSKCQEIGVSLNELLNLN
SNKTESKNH

>sp|P13646|K1C13_HUMAN Keratin, type I cytoskeletal 13 OS=Homo sapiens GN=KRT13
PE=1 SV=4 Site of Methylarginine:27, 35

MSLRLQSSSASYGGGFGGGSCQLGGGRGVSTCSTRFVSGGSAGGYGGGVSCGFGGGAGSG
FGGGYGGGLGGYGGGLGGGFGGGFAGGFVDFGACDGLLTGNEKITMQNLNDR LASYLE
KVRAL E E ANADLEVKIRDWHLKQSPASPERDYSPYYK TIEELRDKILTATIENNRVILEI
DNARLAADD FRLKYENELALRQSVEADINGLRRVLDLTL SKTDLEMQIESLNEELAYMK
KNHEEEMKEFSNQVVGQVNVEMDATPGIDL TRVLAEMREQYEAMAERNRRDAEEWFHTKS
AELNKEVSTNTAMIQTSKTEITELRRTLQGLEIELQS QLSMKAGLENTVAETECRYALQL
QQIQGLISSIEAQLSELRSEMECQNQEYKMLLDIKTRLEQE IATYRSLLLEGQDAKMIGFP
SSAGSVSPRSTSVTTTSSASVTTTASNAGRRTSDVRRP

>sp|P08729|K2C7_HUMAN Keratin, type II cytoskeletal 7 OS=Homo sapiens GN=KRT7
PE=1 SV=5 Site of Methylarginine:25, 46, 48

MSIHFSSPVFTSRSAAFSGRGAQVRLSSARPGGLGSSSLYGLGASRPVAVRSAYGGPVG
AGIREVTINQSL LAPRLDADPSLQRVRQE ESEQIKTLNKFASFIDKVRFLEQQNKLE
TKWTLLEQEQSAKSSRLPDIFEAQIAGLRGQLEALQVDGGRLEAELRSMQDVVDFK NKY
EDEINHRTAAENEFVVLK KDVDAAAYMSKVELEAKVDALNDEINFLRTLNETELTELQSQI
SDTSVVLSMDNSRSLDLGIIAEVKAQYEEMAKCSRAEAEAWYQTKFETLQAQAGKHGDD
LRNRTRNEISEMRAIQRLQAEIDNIKNQRAKLEAAIAEAEERGELALKDARAKQEELEAA
LQRGKQDMARQLREYQELMSVKLALDIEIATYRKLLEGEESRLAGDGVGAVNISVMNSTG
GSSSGGGIGLTLGGTMSGNALSFSSSAGPGLLKAYSIRTASASRRSARD

>sp|000571|DDX3X_HUMAN ATP-dependent RNA helicase DDX3X OS=Homo sapiens
GN=DDX3X PE=1 SV=3 Site of Methylarginine:88, 93, 95, 617, 632

MSHVAVENALGLDQQFAGLDLNSSDNQSGGSTASKGRYIPPHLRNREATKGFYDKDSSGW
SSSKDKDAYSSFGSRSDSRGKSSFFSDRGSRSRGRFDDRGRSDYDGI GSRGDRSGFGKFE
RGGNSRWCDKSD EDDWSKPLPPSERLEQELFSGGNTGINF EKYDDIPVEATGNNCPPHIE
SFSDVEMGEIIMGNIELTRYTRPTPVQKHAIP I I KEKRDLMACAQ TGS GKTA AFLLPILS
QIYSDGPGEALRAMKENG RYGRRKQYPI SLVLAPTRELAVQIYEEARKFSYRSRVRPCVV
YGGADIGQQIRD LER GCHLLVATPGRLVDMMERGKIGLDFCKYLVLDEADRMLDMGFEPQ
IRRIVEQDTMPPKGVRHTMMFSATFPKEIQMLARDFLDEYIFLAVGRV GSTSENITQKVV
WVEESDKRSFLDLLNATGKDSLTLVFVETKKGADSL EFLYHEGYACTSIHGDRSQRDR
EEALHQFRSGKSPILVATAVAARGLDISNVKHVINFDLPSDIEEYVHRIGRTGRVGNLGL
ATSFNERNINITKDLLLVEAKQEVPSWLENMAYEHYKGS SRGRSKSSRFSGGFGAR

DYRQSSGASSSSFSRRASSRSRSGGGHGSRRGFGGGGYGGFYNSDGYGGNYNSQGVDDWW
GN

>sp|Q86XP3|DDX42_HUMAN ATP-dependent RNA helicase DDX42 OS=Homo sapiens
GN=DDX42 PE=1 SV=1 Site of Methylarginine:12, 814, 875

MNWNKGGPGTKRFGFGGFAISAGKKEEPKLPQQSHSAFGATSSSSGFGKSAPPQLPSFY
KIGSKRANFDEENAYFEDEEEDSSNVDPYIPAENSPTRQQFHSPVDSDDDDPLEAFM
AEVEDQAARDMKRLEEKDKERKNVKGIRDDIEEEDDQEAYFRYMAENPTAGVVQEEEDN
LEYSDGNPIAPTKKIIDPLPIDHSEIDYPPFEKNFYNEHEEITNLTPQQQLIDLRHKLN
LRVSGAAPP RP GSSFAHFGFDEQLMHQIRKSEYTQPTPIQCQGV PVALSGRDMIGIAKTG
SGKTAAFIWPMLIHIMDQKELEPGDGPIAVIVCPTRELCQQIHAECKRFGKAYNLRVAV
YGGGSMWEQAKALQEGAEIVVCTPGRLLIDHVKKKATNLQRVSYLVFDEADRMFDMGFQYQ
VRSIASHVRPDRQTLFSAFTRKKIEKLARDILIDPIRVVQGDIGEANEDVTQIVEILHS
GPSKWNWLRRLVEFTSSGVLVFTVTKANAEEELANNLKQEGHNLGLLHGDMDSERNKV
ISDFKKKIDIPVLVATDVAARGLDIPSIKTVINYDVARIDTHTHRIGRTGRAGEKGVAYT
LLTPKDSNFAGDLVRNLEGANQHVSKELLDLAMQNAWFRKSRFKGGKGGKLNIGGGGLGY
RERPLGSENMDRGNVMSNYEAYKPSTGAMGDRLTAMKAAFQSQYKSHFVAASLSNQK
AGSSAAGASGWSAGSLNSVPTNSAQQGHNSPDSPTVSAAKGIPGFGNTGNISGAPVTYP
SAGAQQVNNTASGNSREGTGGSNKRERYTENRGSSRHSGETGNRHS DSPRHGDGGRH
GDGYRHP ESSSRHTDGRHRGENRHGGSAGRHRGENRGANDGRNGESRKEAFNRESKMEPKM
EPKVDSSKMDKVDSKTDKTADGFAVPEPPKRKRSRWS

>sp|Q8IVS2|FABD_HUMAN Malonyl-CoA-acyl carrier protein transacylase,
mitochondrial OS=Homo sapiens GN=MCAT PE=1 SV=2 Site of
Methylarginine:79, 86, 340

MSVRVARVAWVRGLGASYRRGASSFPVPPPGAQGVAE LLRDATGAE EEPWAATERRMPG
QCSVLLFPQGQSQVVMGRGLLNYPVRELYAAARRVLGYDLLELSLHGPQETLDRTVHC
QPAIFVASLAAVEKLHHLQPSVIENCVAAGFSVGEFAALVFAGAMEFAEGLYAVKIRAE
AMQEASEAVPSGMLSVLQGPQSKFNFACLEAREHCKSLGIENPVCEVSNYLPDCRVISG
HQEALRFLQKNSKFFHRTRMLPVSGAFHTRLM E PAVEPLTQALKAVDIKKPLVSVYSN
VHAHRYRHPGHIHKLAAQQLVSPVKWEQTMHAIYERKKGRGFPQTFEVGPGRQLGAILKS
CNMQAWKSYS AVDVLQTL EHVLDLPQEPPR

>sp|Q8WUA2|PPIL4_HUMAN Peptidyl-prolyl cis-trans isomerase-like 4 OS=Homo
sapiens GN=PPIL4 PE=1 SV=1 Site of Methylarginine: 435, 437, 443

MAVLETTGLGDVVIDLYTEERPRACLNFLKLCIKIYNYCLIHNVQRDFIIQTGDPTGTG
RGGESIFGQLYGDQASFFAEKVPRIKHKKGTVMVNNGSDQHGSQFLITTGENDYLD
GVHTVFGEVTEGMDI IKKINETFVDKDFVPYQDIRINH TVILDDPFDDPPDLLIPDRSPE
PTREQLD SGRIGADEEIDDFKGRSAEEVEEIKAEKEAKTQAILLEMVGDLPDADIKPPEN
VLFVCKLNPVTTDELEIIFSRFGPIRSCEVIRDWKTGESLCYAFIEFEKEEDCEKAFFK
MDNVLIDRRRIHVDFSQSVAKVKWKGKGGKYTKSDFKEYEKEQDKPPNLVLDKVKPKQD
TKYDLILDEQAEDSKSSHSHTSKKHKKTHHCSEEKEDDYMPIKNTNQDIYREMGFGHY
EEEEESCWEKQKSEKRDRTQNRSRSRERDGHYSNSHKSKYQTDLYERERSKKRDRSRSP
KSKDKESKYR

>sp|P49247|RPIA_HUMAN Ribose-5-phosphate isomerase OS=Homo sapiens GN=RPIA PE=1
SV=3 Site of Methylarginine:21, 42, 46, 52

MQRPGPFSTLYGRVLAPLPGRAGGAASGGGNSWDLPGSHVRLPGRAQSGTRGGAGNTST

SCGDSNSICPAPSTMSKAEAKKLAGRAAVENHVRNNQVLGIGSGSTIVHAVQRIAERVK
QENLNLVCIPTSFQARQLILQYGLTSLDLRHPIDLAIDGADEVADLNLIKGGGGCLT
QEKIVAGYASRFIVIADFRKDSKNLGDQWHKGIPIEVIPMAYVPSRAVSQKFGGVVELR
MAVNKAGPVVTDNGNFILDWKFDRVHKWSEVNTAIKMIPGVVDTGLFINMAERVYFGMQD
GSVNMREKPFPC

>sp|Q9BYN0|SRXN1_HUMAN Sulfiredoxin-1 OS=Homo sapiens GN=SRXN1 PE=1 SV=2 Site
of Methylarginine:11,16

MGLRAGGTLGRAGAGRGAPEGPGPSGGAQGGSIHSGRIAAVHNVPLSVLIRPLPSVLDPA
KVQSLVDTIREDPDSVPPIDVLWIKGAQGGDYFYSFGGCHRYAAYQQLQRETIPAKLVQS
TSLDLRVYLGASTPDLQ

>sp|Q9H2U1|DHX36_HUMAN ATP-dependent RNA helicase DHX36 OS=Homo sapiens
GN=DHX36 PE=1 SV=2 Site of Methylarginine:47,50,52

MSYDYHQNWGRDGGPRSSGGYGGPAGGHGGRGSGGGGGGGGRGGRGRHPGHLKGR
EIGMWYAKKQGGKNEAERQERAVVHMDERREEQIVQLLSVQAKNDKESEAQISWFAPE
DHGYGTEVSTKNTPCSENKLDIQEKKLINQEKKMFRIRNRSYIDRDSEYLLQENEPDGL
DQKLEEDLQKKKNDLRYIEMQHFREKLPSYGMQKELVNLIDNHQVTVISGETGCGKTTQV
TQFILDNYIERGKGSACRIVCTQPRRISAISSVAERVAERAESCGSGNSTGYQIRLQSRL
PRKQGSILYCTTGIILQWLQSDPYLSSVSHIVLDEIHERNLQSDVLMTVVKDLLNFRSDL
KVILMSATLNAEFSEYFGNCPMIHIPGFTFPVVEYLLEDVIEKIRYVPEQKEHRSQFKR
GFMQGHVNRQEKEEKEAIYKERWPDYVRELRRRYSASTVDVIEMEDDKVDLNLIVALIR
YIVLEEEDGAILVFLPGWDNISTLHDLMSQVMFKSDKFLIPLHSLMPTVNQTQVFKRT
PPGVRKIVIATNIAETSITIDDVVYVIDGGKIKETHFDTQNNISTMSAEVWSKANAKQRK
GRAGRVPQGHCHLYNGLRASLLDDYQLPEILRTPLEELCLQIKILRLGGIAYFLSRLMD
PPSNEAVLLSIRHLMELNALDKQEELTPLGVHLARLPVEPHIGKMILFGALFCCLDPVLT
IAASLSFKDPFV IPLGKEKIADARRKELAKDTRSDHLTVVNAFEGWEEARRRGFRYEKDY
CWEYFLSSNTLQMLHNMKGQFAEHLGAGFVSSRNPKDPESNINSNEKIIKAVICAGLY
PKVAKIRLNLGKKRKMVKVYTKDGLVAVHPKSVNVEQTFHYNWL IYHLKMRSSYLY
DCTEVSPYCLFFGGDISIQKDNQETIAVDEWIVFQSPARIAHLVKELRKELDILLQEK
IESPHVDWNTKSRDCAVLSAII DLIKTQEKATPRNFPFRFQDGYYS

>sp|Q9P258|RCC2_HUMAN Protein RCC2 OS=Homo sapiens GN=RCC2 PE=1 SV=2
Site of Methylarginine:26,28

MPRKAAAAAWEPPSSNGTARAGPRKRGGPAGRKRRPERCSSSSGGGSSGDEDGLELD
GAPGGGKRAARPATAGKAGAAVVITEPEHTKERVKLEGSCKKGQLLIFGATNWDLIGRK
EVPKQQAAYRNLGQNLWGPFRYGLAGVVRTVVSAGCAAHSLITTEGKLWSWGRNEKG
QLGHGDTKRVEAPRLIEGLSHEVIVSAACGRNHTLAL TETGSVFAFGENKMGQLGLGNQT
DAVPSPAQIMYNGQPITKMACGAEFMIMDCKGNLYSFGCPEYQQLGHNSDGKFIARAQR
IEYDCELVPRRVAIFIEKTKDQILPVPNVVVRDVACGANHTLVLDSQKRVSFSGFGGYG
RLGHAEQKDEMVPRLVKLDFPGRGASQIYAGYTCSFAVSEVGGFFWGATNTSRESTMY
PKAVQDLCGWRIRSLACGKSSIIVA ADESTISWGPSPTFGELGYGDHKPKSSTAAQEVKT
LDGIFSEQVAMGYSHSLVIARDESETEKEKIKKLPEYNPRTL

>sp|Q9BST9|RTKN_HUMAN Rhotekin OS=Homo sapiens GN=RTKN PE=1 SV=2 Site of
Methylarginine:9,14

MFSRNHRSRVTVARGSALEMEFKRGRFRLSLFSDLPEDTELQRKLDHEIRMREGACKLLA
ACSQREQALEATKSLVCSNRILSYMDELQRRKEAQLGKTSRRPSDSGPPAERSPCRGR

VCISDLRIPLMWKDTEYFKNKGDLHRWAVFLLQLGHEIQDTEMILVDRTLTDISFQSNV
LFAEAGPDFELRELEYGACVEEEGALTGGPKRLATKLSSSLGRSSGRRVRLSDSAGGSG
SSPILLPTPVVGGPRYHLLAHTTLTAAVQDGFRTDHLTLASHEENPAWLPLYGSVCCRL
AAQPLCMTQPTASGTLRVQQAGEMQNAQVHGVKGTNLCYRQPEDADTGEEPLLTIAV
NKETRVRAGELDQALGRPFTLSISNQYGDDEVHTLQTESREALQSWMEALWQLFFDMSQ
WKQCCDEIMKIETPAPRKPPQALAKQGSLYHEMAIEPLDDIAAVTDILTQREGARLETPP
PWLAMFTDQPALNPCSPASVAPAPDWTPLPWGRPRTFSLDAVPPDHSPRARSVAPLPP
QRSRTRGLCSKGQPRTWLQSPV

>sp|Q96FS4|SIP1_HUMAN Signal-induced proliferation-associated protein 1

OS=Homo sapiens GN=SIP1 PE=1 SV=1 Site of Methylarginine:13,47

MPMWAGGVGSPRRGMAPASTDDLFAKLRQPARPPLTPHTFEPRPVRGPLLRSQSDAGEA
RPPTPASPRARASHHEASRPAATSTRLFTDPLALLGLPAEEPEPAFPPVLEPRWFAHYD
VQSLFDWAPRSQMGSHSEASSGTLASAEDAASSDLLHGAPGFVCELGGEGELGLGGP
ASPPVPALPNAAVSILEEPQNRTSAYSLEHADLGAGYRKYFYGKEHQNFQMGDES LGP
VAVSLRREEKEGSGGTLHSYRVIVRRTQLRTRLRGTISEDALPPGPPRGLSPRKLEHVA
PQLSPSCLRLGSASPKVPRLLTLDEQVLSFQRKVGILYCRAQQSEEMYNQEAQPAF
MQFLTLLGDVVRKGFESYRAQLDTKTDSTGTHSLYTTYQDHEIMFHVSTMLPYTPNNQQ
QLLRKRHIGNDIVTIVFQEPGSKPFCPTTIRSHFQHVFLVRAHTPCTPHTTYRVAVSRT
QDTPAFGPALPAGGGPFAANADFRAFLAKALNGEQAAGHARQFHAMATRTRQQYLQDLA
TNEVTTLSDASRFGLPSLGGRRRAAPRPGAEQAAGSLVWGVRAAPGARVAAGAAS
GPEGIEVPCLLGISAEALVLAAPRDGRVFNCAACRDVLAWTFSEQQLDLYHGRGEAITLR
FDGSPGQAVGEVVARLQLVSRGCETRELALPRDQGRLGFEVDAEGFVTHVERFTAETA
GLRPGARLLRVCGQTLPSLRPEAAAQLRSAPKVCVTVLPDESGRPRRSFSELYTSLQ
EPSRRGAPDPVQDEVQGVTLPTTKQLLHLCLQDGGSPPGDLAEERTEFLHSQNSLSP
RSSLSDEAPVLPNTTPDLLLATTAKPSVPSADSETPLTQDRPGSPSGSEDKGNPAPELRA
SFLPRTLSLRNSISRIMSEAGSGTLEDEWQAISEIASTCNTILESLSREGQPIPESGDPK
GTPKSDAEPEPGLSEKVSHLESMLRKLQEDLQKEKADRAALEEEVRSLRHNNRRLQAES
ESAATRLLLASKQLGSPTADLA

>sp|P05423|RPC4_HUMAN DNA-directed RNA polymerase III subunit RPC4 OS=Homo

sapiens GN=POLR3D PE=1 SV=2 Site of Methylarginine:95,97,99

MSEGNAAAGEPSTGGPRLLTGARGLIGRRPAPPLTPGRLPSIRSDTLGGVKKKTFTP
NIISRKIKEEPKEEVTVKKEKREDRDRQREGHGRGRGRPEVIQSHSIFEQPAEMMKKK
GNWDKTVDVSDMGPSHIINIKKEKRETDKQILRMLKDDFLDDPGLRNDTRNMPVQL
PLAHSGWLFKEENDEPDVWPVLAGPKEEDMEVDIPAVKVKKEPRDEEEEAKMKAPKAAAR
KTPGLPKDVSVAELLRELSLTKEEELLFLQLPDTLPGQPPTQDIKPIKTEVQGEDGQVVL
IKQEKDREAKLAENACTLADLTEGQVQKLLIRKSGRVQLLLGKVTLDVDVTMGACSFQEL
VSVGLGDSRTGEMTVLGHVHKHLVCSPDFESLLDHKHR

>sp|Q9UPN9|TRI33_HUMAN E3 ubiquitin-protein ligase TRIM33 OS=Homo sapiens

GN=TRIM33 PE=1 SV=3 Site of Methylarginine:577,598,604

MAENKGGGEAESGGGSGSAPVTAGAAGPAAQEAEPPLTAVLVEEEEEEGRAGAEGGAA
GPDDGGVAAASSGSAQAASSPAASVGTGAVAGVSTPAPAPASAPAGPSAGPPPAPPAS
LLDTCVAVCQSLQSRREAEPKLLPCLHSFCLRCLPEPERQLSVPIPGGSNGDIQQVGVIR
CPVCRQECRQIDLVDNYFVKDTSAPSSSDEKSEQVCTSCEDNASAVGFCVCEGEWLCKT
CIEAHQRVKFTKDHILIRKKEDVSESVGASGQRPVFCPVHKQEQQLKFCETCDRLTCRDCQ

LLEHKEHRYQFLEEAFQNKGA IENLLAKLLEKKNYVHFAATQVQNR I KEVNETNKRVEQ
EIKVAIFTLIN ENKKGKSL LQQL ENVTKERQMKLLQQQNDITGLSRQVKHVMNFTN WAI
ASGSSTALLYSKRLITFQLRHILKARCDPVPAANGAIRFHCDPTFWAKNVVNLGNLVIES
KPAPGYTPNVVVGQVPPGTNHISKTPGQINLAQLRLQHMQQVYAQKHQQLQQMRMQPP
APVPTTTTTTQQHPRQAAPQMLQQQPPRLISVQTMQRGNMCCGAFQAHQMRLAQNAARIP
GIPRHSGPQYSMMQPHLQRQHSNPGHAGPPVSVHNTTINPTSPTTATMANANRGPTSP
SVTAIELIPSVTNPENLPSLPDIPPIQLEDAGSSSLDNLLSRYISGSHLPPQPTSTMNPS
PGSALS PGSSGLSNSHTPVRPPSTSTGSRGSCGSSGR TAEKTSLSFKSDQVKVKEPG
TEDEICSFSGGVKQEKTEDGRRSACMLSSPESSLTPPLSTNLHLESELDALASLENHVKI
EPADMNESCKQSGLSSLVNGKSPIRSLMHSARIGGDGNNKDDDPNEDWCAVCQNGGDL
CCEKCPKV FHLTCHVPTLLSFP SGDWICTFCRDI GKPEVEYDCDNLQHSKKGKTAQGLSP
VDQRK CERLLL YCHELSIEFQEPVPASIPNYKI IKKPMDLSTVKKLQKKHSQHYQI
PDDFVADVRLIFKNCERFNEMMKVVQVYADTQEINLKADSEVAQAGKAVALYFEDKLTEI
YSDRTFAPLPEFEQEEDDGEVTEDESDEDFIQPRRKRLKSDERP VHIK

>sp|Q96CU9|FXRD1_HUMAN FAD-dependent oxidoreductase domain-containing protein 1

OS=Homo sapiens GN=FOXRED1 PE=1 SV=2 Site of Methylarginine:12

MIRRVLP HGMGRLLTRRPGTRRGGFSLDWDGK VSEIKKKIKSILPGRSCDLLQDTS HLP
PEHSDVVIVGGVGLGLSVAYWLK KLESRRGAIRVLVVERDHTYSQASTGLSVGGICQQFS
LPENIQLSLFSASF LRNINEYLAVVDAPPLDLRFNPSGYLLLASEKDA AAMESNVKVRQ
EGAKVSLMSPDQLRNKFPWINTEGVALASYGMEDEGWFDPWCLLQGLRRKVQSLGVLFCQ
GEVTRFVSSQRMLTDDKAVLKR IHEVHVKMDRSLEYQPVECAIVINAAGAWSAQIAA
LAGVGEGPPGTLQGTKLVEPRKRYVYVWHCPQGPLETPLVADTSGAYFRREGLGSNYL
GGRSPTEQEEPDPANLEVDHDFQDKVWPHLALRVP AFETLKVQSAWAGYYDYNTFDQNG
VVGPHPLVVNMYFATGFSGHGLQQAPGIGRAVAEMVLKGRFQTIDLS PFLFTRFYLGEKI
QENNI

>sp|P52272|HNRPM_HUMAN Heterogeneous nuclear ribonucleoprotein M OS=Homo

sapiens GN=HNRNPM PE=1 SV=3 Site of Methylarginine:60, 457

MAAGVEAAA EVAATEIKMEESGAPG VPSGNGAPGPKGEGERPAQNEKRKEKNIKRGGNR
FEPYANPTKRYRAFITNIPFDVKWQSLKDLVKEKVG ETTYVELLMDAEGKSRGCAVVEFK
MEESMKKAAEVLNKHSLSGRPLKVKEDPDGEHARRAMQKVMATTGGMGMGPGGPMITIP
PSILNPNIPNEI IHALQAGRLGSTVFVANLDYKVGWKKLKEVFSMAGVVVRADILEDKD
GKSRGIGTVTFEQSIEAVQAISM FNQQLLFD RPMHVKMDERALPKGDFP PPERPQQLPHG
LGGIGMGLGPGGQP IDANHLNKGIGMGNIGPAGMMEGIGFGINKMGMMEGPFGGGMENM
GRFGSGMNMGRINEILSNLKRGEIIAKQGGGGGG SVPGIERMGPIDRLGGAGMERMG
AGLGHGMDRVGSEIERMGLVMDRMGSVERMGS GIERMGPLGLDHMASSIERMGQTMERIG
SGVERMGAGMGFLERMAAPIDRVGQTIERMGS GVERMGPAIERMGLSMERMVPAGMGAG
LERMGPVMDRMATGLERMGANNLERMGLERMGANS LERMGLERMGANS LERMGPAMGPAL
GAGIERMGLAMGGGGASFDRAIEMERGNFGGSFAGSFGGAGGHAPGVARKACQIFVRNL
PFDFTWKMLKDKFNECGHVLYADIKMENGSKGCGVVKFESPEVAERACRMNMGKLSGR
EIDVRIDRNA

>sp|Q8WUM0|NUP133_HUMAN Nuclear pore complex protein Nup133 OS=Homo sapiens

GN=NUP133 PE=1 SV=2 Site of Methylarginine:17, 54, 61

MFPAAPSPRTPGTGSRRGLAGLGPSTPRTASRKGLPLGS AVSSPVLFS PVGRRSSLSS
RGTPTRMFP HHSITESVNYDVKTFGSSLPVKVMEALTLAEVDDQLTINIDEGGWACL VCK

EKLIIWKIALSPITKLSVCKELQLPPSDFHWSADLVALSYSSPSGEAHSTQAVAVMVATR
EGSIRYWPSLAGEDTYTEAFVDSGGDKTYSFLTAVQGGSFILSSSGSQLIRLIPESGKI
HQHILPQGGMLSGIGRKVSSFLGILSPSSDLTSSVLWDRERSSFYSLTSSNISKWELD
DSSEKHAYSWDINRALKENITDAIWGSESNEYAIKEGVNIRYLDLKQNCGLVILAAAWH
SADNPCLIIYSLITIEDNGCQMSDAVTVEVTQYNPPFQSEDLILCQLTVPNFSNQTAIYLY
NESAVYVCSTGTGKFSLPQEKIVFNAQGDVSLGAGACGGVPIIFSRNSGLVSITSRENV
ILAELEGSLASSVAGPNSEMIFFETTTKNETIAQEDKIKLLKAAFLQYCRKDLGHAQMV
VDELFSSHSDLDSDSELDRAVTQISVDLMDDPASDPRWAESVPEEAPGFSNTSLIILHQ
LEDKMKAHSLMDFIHQVGLFGRGSGFPVVRGTPMATRLLCEHAEKLSAAIVLKNHHSRL
SDLVNTAILIALNKREYEIPSNLTPADVFFREVSQVDTICECLEHEEQVLRDAPMDSIE
WAEVVINVNNILKMDLQAASHYRQNRNSLYRREESLEKEPEYVPTATSGPGGIRTVIIR
QHEIVLKVAYPQADSNLRNIVTEQLVALIDCFLDGYVSQLKSVDKSSNRERYDNLEMEYL
QKRSDLLSPLSLGQYLWAASLAEKYCDFDILVQMCQTDNQSRQLQRYMTQFADQNFSD
LFRWYLEKGRKLLSQPISQHGQLANFLQAHEHLSWLHEINSQELEKAHATLLGLANME
TRYFAKKKTLGLSKLAALASDFSEDMLQEKIEEMAEQERFLLHQETLPEQLLAEKQLNL
SAMPVLTAPQLIGLYICEENRRANEYDFKKALDLEYYIDEEEDININDLKLEILCKALQR
DNWSSSDGKDDPIEVSKDSIFVKILQKLLKDGILQSEYLPVVKDQLLQADQLGSLKSNPYF
EFVLKANYEYVYVQGGI

>sp|Q9H6A9|PCX3_HUMAN Pecanex-like protein 3 OS=Homo sapiens GN=PCNXL3 PE=1
SV=2 Site of Methylarginine:274,702

MGSQVLQILRQGVWASLTGGWFFDPHQSTFNSCFHLYVWIFLLIFPFLLYMVLPPSLMVA
GVYCLVVAVIFATIKTVNYRLHAMFDQGEIVEKRSSTMGELEEEPAQGDSNPPRDPGVEM
TVFRKVSSTPPVRCSQHSVFGFNQVSELLPRMEDSGPLRDIKELVREQGSNNVIVTSAD
REMLKLSQEKLIGDLPQTPPGAVPDPPLASTDSSEPSPLAGDGAPWSGSSMADTPMSPL
LKGSLSQELSKSFLTLTQPDRALVRTSSRREQRRGAGGYQPLDRRGSGEPTPQKAGSSDS
CFSGTDRETLSSFKSEKTNSTHLDSPGGPAPEGSDDTDPPEAEASPDPAGVPSDDTLR
SFDTVIGAGTPPGAELLVVRPKDLALLRPSKRQPPLRRHSPPGRAPRRPLLEGGGFFE
DEDTSEGSELPASSLRSQRRYSTDSSSSTSCYSPSSRGAAGGPRKRRAPHGAEETAV
PPKRPYGTQRTPTASAKTHARVLSMDGAGGDVLRPPLAGCKAELEAQVGEQAASEPVV
LPAEARRGPAANQPGWRGELQEEGAVGAAEETGRRDRSSSVRRTQAI RRRHNAGSNPTP
PASVMGSPSSLQEAQRGRAASHSRALTLPSALHFASSLLLTRAGANVHEACTFDDTSEG
AVHYFYDESGVRRSYTFGLAGGGYENPVGQQGEQTANGAWDRHSHSSSFHSADVPEATGG
LNLQPRPVVLQGMQVRRVPLEIPEEQTLMEEAPPRAQHSYKYWLLPGRWTSVRYERLAL
LALLDRTRGVLENIFGVGLSSLVAFLGYLLLLKGFFTDIWVWFQCLV IASCQYSLKSVQ
PDAASPMHGHNVIAYSRPVYFCICLLIWLLDALGSAQPFPPVSLYGLTLFSASFFCA
RDVATVFTLCFPFVLLGLLPQVNTCLMYLLEQIDMHGFGGTAATSPLTAVFSLSRSLLA
AALLYGFCLGAIKTPWPEQHPVPLFSVFCGLLVALSYHLSRQSSDPTVLWLSIRSKLFPE
LEERSLETARAEPDPLPKMRQSVREVLHSDLVMCVVI AVLTF AISASTVFIALKSVLG
FVLYALAGAVGFFTHYLLPQLRKQLPWFCLSQPVLPLEYSQYEVGAAQVMWFEKLYAG
LQCVEKYLIIYAVVNLALTVAHTVVSHPDKYCFYCRALLMTVAGLKLLRSAFCCPPQY
LTLAFTVLLFHFDPRLSQGFLLDYFLMSLLCSKLWDLLYKLRVFLTYIAPWQITWGSF
HAFAPFAVPHSAMLVQALLSGLFSTPLNPLLGSVAVFIMSYARPLKFWERDYNTRKVDH
SNRLVTLQDRNPGADDNNLSIFYEHLTRSLQHTLCGDLVLRGWGNYGPGDCFLVASY
LNALVHLIEVGNGLVTFQLRGLFRGTYCQQRVEAITEGVEEDEGCCCEPGLPRVLS

FNAAFGQRWLAW EVTASKYVLEGYSISDNNAASMLQVFDLRKILITYYVKSIIYYVSRSP
KLEVLWSHEGITAALRPVVRPGYADSDPTFSLSVDEYDLRLSGLSLPSFCVHLEWIQY
CASRRSQPVDQDWSPLVTLFCFLCVLGRRALGTASHSMSASLEPFLYGLHALFKGDFRI
TSPRDEWVFADMDLLHRVAVPGVVRMALKLHQDHFTSPDEYEEPAALYDAIAANEERLVIS
HEGDPAWSAILSNTPSLLALRHVLDASDEYKIIMLNRRLSFRV IKNRECVRGLWAG
QQQELVFLRNRNPERGSIQNAKQALRNMINSSCDQPLGYPIYVSPLTTSLAGSHPQLRAL
WGGPISLGAIAHWLLRTWERLHKGCGAGCNSGGNVDDSDCSGGGGLTSLSNPPVAHPTP
ENTAGNGDQPLPPGPGWGRSSLSGSGDGRPPPLQWPPPRLPGPPASPIPTGPRTSR
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VSTEASPPRASQDIPCLDSSAPESGTPMGALGDWPAPIEERESPAAPLLEHQY

>sp|Q96PU8|QKI_HUMAN Protein quaking OS=Homo sapiens GN=QKI PE=1 SV=1 Site of
Methylarginine:227, 242

MVGEMETKEKPKPTDYLMQLMNDKMLSSLPNFCGIFNHLERLLDEEISRVKDMYNDT
LNGSTEKRSaelPDAVGPVQLQEKLVPVKEYPDFNFVGRILGPRGLTAKQLEAETGCK
IMVRGKSMRDKKKEEQNRGKPNWEHLNEDLHVLITVEDAQNRAEIKLKRAVEEVKLLV
PAAEGEDSLKMQMELAILNGTYRDANIKSPALAFSLAATAQAAPRIITGPAPVLPAA
LRTPTAGPTIMPLIRIQITAVMPNGTPHTAAIVPPGPEAGLIYTPYEYPTLAPATSI
LEYPIEPSGVLGAVATKVRHDMRVHPYQRIVTADRAATGN

>sp|Q13454|TUSC3_HUMAN Tumor suppressor candidate 3 OS=Homo sapiens GN=TUSC3
PE=1 SV=1 Site of Methylarginine:63, 67

MGARGAPSRRRQAGRRLRYLPTGSFPFLLLLLLCCIQLGGGQKKKENLLAEKVEQLMEWS
SRRSIFRMNGDKFRFKIKAPPRNYSMIVMFTALQPQRQCSVCRQANEYQILANSWRYSS
AFCNKLFFSMVDYDEGTDVFFQQLNMNSAPTFMHFPKGRPKRADTFDLQRIGFAAEQLAK
WIADRTDVHIRVFRPPNYSGTIALALLVSLVGGLLYLRRNLEFTYKNGWAMVSLCIVF
AMTSGQMWNHIRPPYAHKNPHNGQVSYIHGSSQAQFVAESHIILVLNAAITMGMVLLNE
AATSKGDVGKRRIIICLVGLGLVFFFSFLLSIFRSKYHGYPSDLDFE

50 proteins with 52 methylated lysine sites:

>tr|D3ZAZ5|D3ZAZ5_RAT Breast cancer anti-estrogen resistance 3 OS=Rattus
norvegicus GN=Bear3 PE=4 SV=1 Site of Methyllysine:334

MAAGKFASLPRHMPVNHQFPLASSMDLLSSKSPLAHRTEAYPDVSIHGTLPRKKKGPPP
IRSCDSASHMGTLPHSKSPRQSSPLTQDLILEKPLPDWKGDSFAFRDPYLLDPTLEYVKF
SKERHIMDRTPERLKKLEEEELLSSEDLRSHAWYHGRIPRQVSENLVQRDGFVLRDLSL
SSPGNFVLTQWKNLAQHFKINRTVLRLEAYSRVQYQFEMESFDSIPGLVRCYVGNRRP
ISQQSGAIIFQPINRTVPLWCLEERYGTSPGRGREGSFAEGRPDVVKRSLTTGGIQARD
HSLPRGNLLRNKDKSGSQPAQLDHVQDRKAATLKAHQSESHLPIGCKLPPQSPSVDTSPC
PNSPVFRTGSEPTLSPALVRRFSSDARAGEALRGSDSQLCPKPPPKPCKVPFLKVPSPS
PWLNSEANYCELNPAFVGC DRGAKLLSQALDSHEMLLTAKQNGASGPRNSGINYSILDG
DDQGRHWDPLAVQTDEGQEDETKFVPPVMEVTVSSFRPNDFESKLLPENKPLETAMKHA
KELFTNH DARVIAQHMLSVDCVKARILEVSEDMKRSMGVSSGLELITLPHGRQLRLDIE
RHNTMAIGIAVDILGCTGTLENRAGTLNKIIQVAMELKDTMGDLYSFSAIMKALEMPQIT
RLEKTWTALRHHTQTATILYEKQLKPFKILHEGRESTYVPASSVSVPLLMPLVTLMERQ
AVTFEGTDMWEKNDESCIEIMLSHLATARFMAEASESYRMAERVLADFQPDDEEMTEILKT
EFQMRLWGSKGAEVNQNERDYKFNQILTALSRKLEPPSGKQAEI

>tr|A7E2C5|A7E2C5_HUMAN BZRAP1 protein OS=Homo sapiens GN=BZRAP1 PE=2 SV=1 Site of Methyllysine:174

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SKPKGDGSSRPVGGTDPGAEACLPSLGQQASSSGPACQRPEDDEEVEAFLKAKLNMSFGD
RPNLELLRALGELRQRCAILKEENQMLRKSSFPETEEKVRRLLKRKNAELAVIAKRLEERA
RKLQETNLRVEGPQWLHVRFDRLLRESQREVLRLQRQIALRNQRETLPLPPSWPPGPAL
QARAGAPAGGAEATPQEDADNLPVILGEPEKEQRVQQLSELSKKRKKCESLEQEARK
KQRRCEELELQLRQAQENARLVEENSRLSGRATEKEQVEWENAELRGQLLGVGTQERDSA
LRKSQGLQSKLESLEQVLKHMREVAQRRQQLVEHEQARLSLREKQEEVRRLLQQAQAEAQ
REHEGAVQLLESTLDSMQARVRELEEQRCSQTEQFSLLAQELQAFRLHPGPLDLLTSALD
CGSLGDCPPPPCCCSIPQPCRGSQPKDLDLPPGSPGRCTPKSSEPAPATLTGVPRRTAKK
AESLSNSSHSES IHNSPKSCPTPEVDTASEVEELEADSVSLLPAAPEGSRGGARIQVFLA
RYSYFPFEGPNENPEAELPLTAGEYIYIYGNMDEDGFFEGELMDGRRGLVPSNFVERVSD
DDLLTSLPPELADLSHSSGPELSFLSVGGGGSSGGQSSVGRSQPRPEEDAGDELSLSP
SPEGLGEPVAVPYPRRLVVLKQLAHSVVLAWEPPELHGFHICVNGELRQALGPGAP
PKAVLENLDLRAGPLHISVQALTSRGSSDPLRCCLAGARAGVVPSQLRVHRLTATSAEI
TWVPGNSNLAHAIYLNGECCPPASPSTYWATFCHLRPGTPYQAQVEAQLPPQGPWEPGWE
RLEQRAATLQFTTLPAGPPDAPLDVQIEPGSPGILIIISWLPVTIDAAGTSNGVVRTGYA
IYADGGKIMEVASPTAGSVLVELSQLQLLQVCREVVVRTMSPHGESADSIPAPITPALAP
ASLPARVSCSPHPSPEARAPLASASPGGDPSSPLQLPAPLGTQEPGAPPASPSREMP
KGSHEPAPPCSQEEAGAVLGTSEERTASTSTLGEKDPGAAPSLAKQEAEWAGEACP
ASSSTQARAQQAPNTEMCQGGDPGSLRPRAEKEDTAELGVHLVNSLVDHGRNSDLSDI
QEEEEEEEEEEEEELGSRTCSFQKQVAGNSIRENGAKSQDPFCETDSDEEILEQILELP
LQQFCSKKLFSPPEEEEEEEEEDEEEKSGAGCSSRDPGPPEPALLGLGCDGQPRRPGQC
PLSPESSRAGDCLEDMPGLVGGSSRRRGGGSPEKPPSRRRPPDPREHCSRLSNNGPQAS
GRLGPTRERGGLPVIEGPRTGLEASGRGRLGPSRRCRGRALPGLASCLSPKCLEISIE
YDSEDEQEAGSGGISITSSCPGDGEAWGTATVGRPRGPPKANSQKPYPRLPWEKGE
ERRGRSATGRAKEPLSRATETGEARGQDGSRRGPQKRGVRLRPSTAEVLPARSPSETL
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KAESEGPAQPCGPPKLVPSADLKAPHSMVAAFDYNPQESSNMDVEAELPFRAGDVITV
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>sp|Q70E73|RAPH1_HUMAN Ras-associated and pleckstrin homology domains-
containing protein 1 OS=Homo sapiens GN=RAPH1 PE=1 SV=3 Site of
Methyllysine:134

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NMANFSYRFSIYNLNEALNQGETVDLDALMADLCSIEQELSSIGSGNSKRQITETKATQK
LPVSRHTLKHGTLKGLSSSSNRIAKPSHASYSLLDDVTAQLEQASLSMDEAAQQSVLEDTK
PLVTNQHRRTASAGTVSDAEVHSISNSSHSSITSAASSMDSLIDKVTRPQELDLTHQGG
PITEEEQAALKKAEKIRVALEKIKEAQVKKLVIRVHMSDDSSKTMVDERQTVRQVLDNL
MDKSHCGYSLDWSLVETVSELQMERIFEDHENLVENLLNWTRDSQNKLIEMERIEKYALF
KNPQNYLLGKKETAEMADRNKEVLLIECFGSSVTVPEIEGVLWLKDDGKKSWKRYFLL
RASGIYVYPKGAKAVSRDLVCFQLQDHVNVVYGGQDYRNKYKAPTCLVLPKHPQIQKKSQ
YIKYLCDDVRTLHQWVNGIRIAKYGKQLYMNYQEAALKRTEASAYDWTSLSSSSIKSGSSS

SSIPESQSNHSNQSDSGVSDTQPAGHVRSQSISSVFSEAWKRGQTLEESSKARMESMNR
PYTSLVPLSPQPKIVTPYASQSPPLPPPPPPPPPPPPPPPPPPPLPSQSAPSAGSA
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PKQQSFCAKPPPSPLSPVPSVVKQIASQFPPPTTPAMESQPLKPVANVAPQSPPAVKA
KPKWQSSIPVSPDFPPPPPESSLVFPPPPSPVPAPPPPPPTASPTPKSGSPGKKT
SKTSSPGGKPPPTPQRNSSIKSSSGAEHPEPKRPSVDSLVSFKTPPAESGSPSKETLPP
PAAPPKPGKLNLSGVLNPGVLQQGCVSAKAPVLSGRGKDSVVEFPSPPSDSDFPPPPPET
ELPLPPIEIPAVFSGNTSPKVAVVPNPQQWQWSKMSVKKAPPPTRPKRNDSTRLTQAEISE
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>sp|Q6R327|RICTR_HUMAN Rapamycin-insensitive companion of mTOR OS=Homo sapiens
GN=RICTOR PE=1 SV=1 Site of Methyllysine:1367

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NNFTKLLCDIGHSEEKLGPHYEDI IICLRLALLNEAKEVRAAGLRALRYLIQDSSILQKV
LKLKVDYLIARCIDIQQSNEVERTQALRLVRKMITVNASLFPSSVTNSLI AVGNDGLQER
DRMVRACIAIICELALQNPVVALRGGLNTILKNVIDCQLSRINEALITTLHLLNHPKT
RQYVRADVELERILAPYTDHFYRHSPDTAEGQLKEDREARFLASKMGIATFRSWAGIIN
LCKPGNSGIQSLIGVLCIPNMEIRRGLLEVLYDIFRLPLPVVTEEFIEALLSVDPGRFQD
SWRLSDGFVAEAKTILPHRARSRPDLMDNYLALILSAFIRNGLLEGLVEVITNSDDHIS
VRATILLGELLHMANTILPHSHSHLHCLPTLMNMAASFDIPKEKRLRASAALNCLKRFH
EMKRRGPKPYSLHLDHI IQKAIATHQKRDQYLRVQKDFILKDT EEALLINLRDSQVLQH
KENLEWNWNLIGTILKWPVNLRNKDEQLHRFVRRLYFYKPKSKLYANLDDLDFAKAKQ
LTVVGCQFTEFLLESEEDGGYLEDLVKDIVQWLNASSGMKPERSLQNNGLTTLSQHYP
LFIGTLSCHPHGVKMLEKCSVFQCLLNLCSLKNQDHLKLTVSSLDYSRDGLARVILSKI
LTAATDACRLYATKHLRVLLRANVEFFNNGI ELLVTQLHDKNKTI SSEALDILDEACED
KANLHALIQMKPALSHLGDKGLLLLLRFLSIPKGFSYLNERGYVAKQLEKWHREYNSKYV
DLIEEQLNEALTYRKVPVDGNYVRRSNQRLQRPHVYLP IHLYGQLVHHKTGCHLLEVQN
IITELCRNV RTPDLKWEIEKKLKASLWALGNIGSSNWGLNLLQEENVIPDILKLAQCE
VLSIRGTCVYVGLIAKTKQGC DILKCHNWDVHRSRKHLWPVVPDDVEQLCNELSSIPS
TSLNSESTSSRHNSESESVSSMFILEDDRFSSSTSTFFLDINEDTEPTFYDRSGPIK
DKNSFPFFASSKLVKNRILNSLTPNKKHRSSSDPKGGKLSSESKTSNRRIRTLTEPSVD
FNHSDDFTPISTVQKTLQLETSFMGNKHIEDTGSTPSIGENDLKFTKNFGTENHRENTSR
ERLVVESSTSSHMKIRSQSFNTDTTSGISSMSSSPSRET VGDATMTDTCGSMSTVVS
TKTIKTSHYLTPQSNHLSLSKSNVSLVPPGSSHTLPRRAQSLKAPS IATIKSLADCNFS
YTSSRDAFGYATLKRLLQQRMHPSLSHSEALASPAKDVLFDTITMKANSFESRLTPSRF
MKALSYASLDKEDLLSPINQNTLQRSSSVRSMVSSATYGGSDDYIGLALPVDINDIFQVK
DIPYFQTKNIPPHDDR GARAF AHDAGGLPSGTGGLVKNSFHLLRQQMSL TEIMNSIHSDA
SLFLESTEDTGLQEHTDNC LYCVCI EILGFQPSNQLSAICSHSDFQDIPYSDWCEQTIH
NPLEVVP SKFSGISGCS DGVSQEGSASSTKSTELLG VKTIPDDTPMCRILLRKEVLRV
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>sp|Q9UEE9|CFDP1_HUMAN Craniofacial development protein 1 OS=Homo sapiens

GN=CFDP1 PE=1 SV=1 Site of Methyllysine:219

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RKRQGGSLSEEEEEEDANSESEGSSEEDDAAEQEKIGSEDARKKKEDELWASFLND
VGPKSKVPPSTQVKKGEETEETSSSKLLVKAEELEKPKETEKVKITKVFDFAGEEVRVTK
EVDATSKEAKSFFKQNEKEKPQANVPSALPSLPAGSGLKRSSGMSSLLGKIGAKKQKMST
LEKSKLDWESFKEEEEGIGEELAIHNRGKEGYIERKAFLDRVDHRQFEIERDLRLSKMKP

>sp|000515|LAD1_HUMAN Ladinin-1 OS=Homo sapiens GN=LAD1 PE=1 SV=2 Site of
Methyllysine:367

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RLPSVEEAQVPLPPASKDEDEDIQSILRTRQERRRRQVVEAAQAPIQERLEAEEGRN
SLSPVQATQKPLVSKKELEIPRRRLSREQRGPWALEEESLVGREPEERKKGVPEKSPVL
EKSSMPKKTAPKSLVSDKTSISEKVLASEKTSLEKIAVSEKRNSEKKSVEKTSVSE
KSLAPGMALGSGRRLVSEKASIFEKALASEKSPTADAKPAPKRATASEQPLAQEPPASGG
SPATTKEQRGRALPGKNLPSLAKQGASDPPTVASRLPPVTLQVKIPSKEEADMSSPTQR
TYSSSLKRSSPRTISFRMKPKKENSETTLTRSASMKLPDNTVKLGEKLERYHTAIRRS
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RTQESGDQDPQEAQKASSATERTQWQKSDSSSLDAEV

>sp|Q66K74|MAP1S_HUMAN Microtubule-associated protein 1S OS=Homo sapiens
GN=MAP1S PE=1 SV=2 Site of Methyllysine:553

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CLEETGELLQTTGGFSPHHFLQVLKDREIRDILATPPPVPPIILTITCPTFGDWAQLAP
AVPGLQGALRLQLRLNPPAQLPNSEGLCEFLEYVAESLEPPSPFELLEPPPTSGGFLRLGR
PCCYIFPGGLGDAFFAVNGFTVLVNGGSNPSSFWKLRHLDRVDAVLVTHPGADSLPG
LNSLLRRKLAERSEVAAGGGSWDDRLRRLISPNLGVVFFNACEAASRLARGEDEAEALALS
LLAQLGITPLPSRGPVPAKPTVLFKMGVGRLDYVHPPSAGAERTLASVCALLVWHP
AGPGEKVVVRLFPGCTPPACLLDGLVRLQHLRFLREPVTQDLEGPGAESKESVGSRD
SSKREGLLATHPRPGQERPVARKEPARAEAPRKEKEAKTPRELKKDPKPSVSRTPRE
VRAASSVNLKKTNAQAAPKPRKAPSTSHSGFPPVANGPRSPSLRCGEASPPSAACGS
PASQLVATPSLELGPYPAGEEKALELPLAASSIPRPRTPSPESHRSAPAESRSLSPSLR
GGEAGPDASPTVTPTVTPSLPAEVGSPHSTEVDESLSVSFEQVLPSPAPTSEAGLSLP
LRGPRARRSASPHVDLCLVSPCFEHRKAVPMAPAPASPGSSNDSSARSQERAGGLGAE
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CMVDPEMLPPKTARQTENVSRTRKPLARPNRAAPKATPVAAAKTKGLAGDRASRPLS
ARSEPSEKGRAPLSRKSSTPKATRGPSPGASSRPGVSATPPKSPVYLDLAYLPSGSSA
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>sp|Q15942|ZYX_HUMAN Zyxin OS=Homo sapiens GN=ZYX PE=1 SV=1 Site of
Methyllysine:295

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GEIPPPPPEDFPLPPPLAGDGDAAEGALGGAFPPPPPIEESFPAPLEEEIFPSPPP
PEEEGGPEAIPPPPQPREKVSSIDLEIDSLSSLLDDMTKNDPFKARVSSGYVPPPVATP
FSSKSTKPAAGGTAPLPPWKSPPSSQLPQVPAPAQSQTFHVQPQPQPKPVQLHVQS
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ALSAGTGSPQPPSFTYAQQREKPRVQEKQHPVPPPAQNQNQVRSPGAPGPLTLKEVEELE
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GQQFYSLGAPYCEGCTDTLEKNTCGEPITDRMLRATGKAYHPHCFTCVVCARPLEGT
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>sp|Q9NQS1|AVEN_HUMAN Cell death regulator Aven OS=Homo sapiens GN=AVEN PE=1
SV=1 Site of Methyllsine:230

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GARGGRGGGAPRGRSRREPGGWGAGASAPVEDDDSAETYGEENDEQGNYSKRKIVSNWDR
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IS

>sp|P14625|ENPL_HUMAN Endoplasmin OS=Homo sapiens GN=HSP90B1 PE=1 SV=1 Site of
Methyllsine:663

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NDTFWKEFGTNIKLGVI EDHSNRTRLAKLLRFQSSHPTDITSLDQYVERMKEKQDKIYF
MAGSSRKEAESSPFVERLLKKGYEVIYLTEPVDEYCIQALPEFDGKRFQVNAKEGVKFDE
SEKTKESREAVEKEFEPLLNWMDKALKDKIEKAVVSQRLTESPCALVASQYGSWGNMER
IMKAQAYQTGKDISTNYASQKKTFEINPRHPLIRDMLRRIKEDDDKTVLDLAVVLFET
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EMDVGTDEEEETAKESTA EKDEL

>sp|Q8N163|CCAR2_HUMAN Cell cycle and apoptosis regulator protein 2 OS=Homo
sapiens GN=CCAR2 PE=1 SV=2 Site of Methyllsine:123

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LLKSPAPLLHVAALGQKQILGAQPQLIFQPHRIPPLFPQKPLSLFQTSHTLHLSHLNR
FPARGPHGRLDQGRSDDYDSKKRKRQ RAGGEPWGAKKPRHDLPPYRVHLTPYTVDSPICDF
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EEFAGAKLEDSEVRSVASNQSEMEFSSLQDMPKELDPSAVLPLDCLLAFVFFDANWCGYL

HRRDLERILLTLGIRLSAEQAKQLVSRVVTQNICQYRSLQYSRQEGLDGGLPEEVLFGNL
DLLPPPGKSTKPGAAPTEHKALVSHNGSLINVGSLQRAEQQDSGRLYLENKIHTLELKL
EESHNRFSATEVTNKTAAEMQELRVRLAEAEETARTAERQKSQLRLLQELRRRLTPLQ
LEIQRVVEKADSWVEKEEPPAPSN

>sp|Q96JP5|ZFP91_HUMAN E3 ubiquitin-protein ligase ZFP91 OS=Homo sapiens
GN=ZFP91 PE=1 SV=1 Site of Methyllysine:174

MPGETEPRPPEQQDQEGGEAAKAAPEEPQQRPEAVAAAAPAGTTSSRVLRGGRDRGRAA
AAAAAAVSRRRKAEYPRRRSSPSARPPDVPQQPQAAKSPSPVQKKSPLLCEKVT
TDKDPKEEKEEEDSALPQEVSAASRPSRGWRSSRTSVSRHRDTENTRSSRSKTGSLQL
ICKSEPNTDQLDYDVGEEHQSPGGISSEEEEEEEEMLISEEEIPFKDDPRDETYKPHLE
RETPKPRRKSQKVEEKEKEIKVEVEVEVEKEEENEIREDEEPPRKRGRRRKDDKSPRLP
KRRKKPPIQYVRCMEGCGTVLAHPRYLQHHIKYQHLLKKKYVCPHPSCGRLFRLQKQLL
RHAKHHTDQRDYICEYCARAFKSSHNLAVHRMIHTGEKPLQCEICGFTCRQKASLNWHMK
KHDADSFYQFSCNICGKKEFKDSVVAHKAKSHPEVLIAEALANAGALITSTDILGNP
ESLTQPSDQGLPLLPEPLGNSTSGECLLLEAEGMSKSYCSGTERVSLMADGKIFVGS
SGGTEGLVMNSDILGATTEVLIEDSDSAGP

>sp|Q9NVM6|DJC17_HUMAN DnaJ homolog subfamily C member 17 OS=Homo sapiens
GN=DNAJC17 PE=1 SV=1 Site of Methyllysine:264

MAVTKELLQMDLYALLGIEKAADKEVKKAYRQKALSCHPDKNPDNPRAAELFHQLSQAL
EVLTDAAAARAAYDKVRKAKKQAAERTQKLEDEKRKKVKLDLEARERQAQAQSEEEEEESRS
TRTLEQEIERLREEGSRQLEEQQRLIREQIRQERDQRLRGKAENTEGGTPKLLKWKCK
KEDESKGGYSKDVLLRLLQKYGEVNLVLSKKPGTAVVEFATVAAELAVQNEVGLVDN
PLKISWLEGGPQDAVGRSHSGLSKGSVLSERDYESLVMMRMRQAERQQLIARMQEDQE
GPPT

>sp|P08238|HS90B_HUMAN Heat shock protein HSP 90-beta OS=Homo sapiens
GN=HSP90AB1 PE=1 SV=4 Site of Methyllysine:607

MPPEVHHGEEVETFAFQAEIAQLMSLIINTFYNSKEIFLRELISNASDALDKIRYESLT
DPSKLDGKELKIDIIPNPQERTLTLVDTGIGMTKADLNNLGTIAKSGTKAFMEALQAG
ADISMIGQFGVGFYSAYLVAEKVVVITKHNDDEQYAWESSAGGSFTVRADHGEP IGRGK
VILHLKEDQTEYLEERRVKEVVKHSQFIGYPITLYLEKEREKEISDDEAEKEEKEE
DKDDEEKPIEDVGSDEEDDSGDKKKKTKIKEKYIDQEELNKTPIWTRNPDDITQEE
YGEFYKSLTNDWEDHLAVKHFVVEGQLEFRALLFIPRRAPFDLFENKKKNNIKLYVRRV
FIMDSCDELIPEYLNFRGVVDEDLPLNISREMLQQSKILKVIKKNIVKKCLELFS
EDKENYKFFYEAFSKNLKLGIHEDSTNRRRLSELLRYHTSQSGDEMTSLSEYVSRMKETQ
KSIYYITGESKEQVANSFVERVRKRGFEVVMTEPIDEYCVQQLKEFDGKSLSVTKEG
LELPEDEEKKKMEESKAKFENLCKLMEILDKKVEKVTISNRLVSSPCCIVTSTYGWTA
NMERIMKAQALRDNSTMGYMAKKHLEINPDHPIVETLRQKAEADKNDKAVKDLVLLFE
TALLSSGFSLEDPQTHSNRIYRMIKLGLGIDEDEVAEEPNAAVPDEIPPLEGDEDASRM
EEVD

>sp|P34932|HSP74_HUMAN Heat shock 70 kDa protein 4 OS=Homo sapiens GN=HSPA4
PE=1 SV=4 Site of Methyllysine:773

MSVVGIDLGFQSCYVAVARAGGIETIANEYSDRCTPACISFGPKNRSIGAAAKSQVISNA
KNTVQGFGRFHGRAFSDFVEAEKSNLAYDIVQLPTGLTGIKVTYMEERNFTTEQVTAM
LLSKLKETAESVLKPKVVDVSVPCFYTDAERRSVMDATQIAGLNCLRLMNETTAVALA

YGIYKQDLPALEEKPRNVVFDVMGHSAYQVSVCAFNRGKLVLATAFDTTLGGKRFDEVL
VNHFCSEFGKXYKLDIKSKIRALLRLSQCCEKLLKMSANASDLPLSIECFMNDVDVSGT
MNRGKFLMECNDLLARVEPLRSVLEQTKLKKEDIYAVEIVGGATRIPAVKEKISKFFGK
ELSTTLNADEAVTRGCALQCAILSPAFAKREFSITDVVPYPISLRWNSPAEEGSSDCEVF
SKNHAAPFSKVLTFYRKEPFTLEAYYSSPQDLPYPDPAIAQFSVQKVTQSDGSSSKVKV
KVRVNVHGFVSVSSASLVEVHKSEENEEMETDQNAKEEEKMQVDQEEPHVEEQQQQTPA
ENKAESEEMETSQAGSKDKKMDQPPQAKKAKVKTSTVDLPIENQLLWQIDREMLNLYIEN
EGKMIQDKLEKERNDAKNAVEEYVYEMRDKLSGEYEFVSEDDRNSFTLKLEDTENWLY
EDGEDQPKQVYVDKLAELKNLGGPIKIRFQESEERPKLFEELGKQIQQYMKIISFKNKE
DQYDHLDAADMTKVEKSTNEAMEWMNKNLQNKQSLTMDPVVKSKEIEAKIKELTSTCS
PIISKPKPKVEPPKKEQKNAEQNGPVDGQDNPQPAAEQGTDTAVPSDSDKLPEDID
>sp|P11021|GRP78_HUMAN 78 kDa glucose-regulated protein OS=Homo sapiens
GN=HSPA5 PE=1 SV=2 Site of Methyllysine: 591

MKLSLVAAMLLLLSAARAEEDKKEDVGTVVGIDLGTTYSCVGVFKNGRVEIIANDQGNR
ITPSYVAFTPEGERLIGDAAKNQLTSNPENTVFDKRLIGRTWNDPSVQQDIKFLPFKVV
EKKTTPYIQVDIGGGQTKTFAPEEISAMVLTMMKETAEAYLGKVVTHAVVTPAYFNDAQ
RQATKDAGTIAGLNMRIINEPTAAAIAAYGLDKREGEKNILVFDLGGGTFDVSLLTIDNG
VFEVVATNGDTHLGGEDFDQRVMEHFIKLYKKKTGKDVVRKDNRAVQKLRREVEKAKRALS
SQHQARIEIESFYEGEDFSETLTRAKEELNMDLFRSTMKPVQKVLSDKLSIDEIV
LVGGSTRIPKIQQLVKEFFNGKEPSRGINPDEAVAYGAAVQAGVLSGDQDTGDLVLLDVC
PLTLGIETVGGVMTKLIIPRNTVPTKKSQIFSTASDNQPTVTIKVYEGERPLTKDNHLLG
TFDLTGIPPAPRGVPQIEVTFEIDVNGILRVTAEDKGTGNKNKITITNDQNRLTPEEIER
MVNDAEKFAEEDKKLKERIDTRNELESYAYSLKNQIGDKEKLGKLSSEDKETMEKAVEE
KIEWLESHQDADIEDFKAKKKELEEIVQPIISKLYGSAGPPPTGEEDTAEKDEL

>sp|P11142|HSP7C_HUMAN Heat shock cognate 71 kDa protein OS=Homo sapiens
GN=HSPA8 PE=1 SV=1 Site of Methyllysine:557

MSKGPVAVGIDLGTTYSCVGVFHGKVEIIANDQGNRTTPSYVAFTDTERLIGDAAKNQVA
MNPTNTVFDKRLIGRRFDDAVVQSDMKHWPFMVNDAGRPKVQVEYKGETKSFYPEEVS
SMVLTKMKEIAEAYLGKTVTNAVVTVPAYFNDSQRQATKDAGTIAGLNLRIINEPTAAA
IAAYGLDKKVAERNVLIIFDLGGGTFDVSILTIEDGIFEVVKSTAGDTHLGGEDFDNRMVNH
FIAEFKRKHKKDISENKRAVRRRLTACERAKRTLSSSTQASIEIDSLYEGIDFYTSITRA
RFEELNADLFRGTLDPVEKALRDAKLDKSQIHDIVLVGGSTRIPKIQKLLQDFNKGELN
KSINPDEAVAYGAAVQAAILSGDKSENVQDLLLLDVTPLSLGIETAGGVMVLIKRNNTI
PTKQTQFTTYSNQPGLIQVYEGERAMTKDNLLGKFELTGIPPAPRGVPQIEVTFDI
DANGILNVSVDKSTGKENKITITNDKGRLSKEDIERMVQEAKEYKADEKQRDKVSSKN
SLESYAFNMKATVEDEKLQKINDEDKQKILDKCNEIINWLDKNQTAKEKEEFHQKKELE
KVCNPIITKLYQSAGGMPGGMPGGFPGGAPPSSGGASSGPTIEEVD

>sp|P50238|CRIP1_HUMAN Cysteine-rich protein 1 OS=Homo sapiens GN=CRIP1 PE=1
SV=3 Site of Methyllysine:64

MPKCPKCNKEVYFAERVTSLGKDWHRPCLCKECKGKTLTSGGHAEHEGKPYCNHPCYAAM
FGPKGFGRGGAESHTEFK

>sp|P08107|HSP71_HUMAN Heat shock 70 kDa protein 1A/1B OS=Homo sapiens
GN=HSPA1A PE=1 SV=5 Site of Methyllysine:567

MAKAAAIGIDLGTTYSCVGVFHGKVEIIANDQGNRTTPSYVAFTDTERLIGDAAKNQVA

LNPQNTVFDKRLIGRKFQDPVQSDMKHWPQVINDGDKPKVQVSYKGETKAFYPPEEIS
SMVLTKMKEIAEAYLGYPVTVNAVITVPAYFNDSQRQATKDAGVIAGLNVLRINEPTAAA
IAYGLDRTGKGERNVLIFDLGGGTFDVSILTIDDGIFEVKATAGDTHLGGEDFDNRLVNH
FVEEFKRKHKKDISQNKRAVRRRLTACERAKRTLSSSTQASLEIDSLFEGIDFYTSITRA
RFEELCSDLFRSTLEPVEKALRDAKLDKAQIHDLVLVGGSTRIPKVQKLLQDFNGRDLN
KSINPDEAVAYGAAVQAAIILMGDKSENVQDLLLLDVAPLSLGLTAGGVMTALIKRNSTI
PTKQTQIFTTYSNQPQVLIQVYEGERAMTKDNLLGRFELSGIPPAPRGVPPQIEVTFDI
DANGILNVTATDKSTGKANKITITNDKGRLSKEEIERMVQEAKEYKAEDVQRERVSANK
ALESYAFNMKSAVEDEGLKGGISEADKKKVLKQCEVISWLDANTLAEKDEFEHKRKELE
QVCNPIISGLYQGAGGPGGGFQAQGPKGGSGSGPTIEEVD

>sp|O60870|KIN17_HUMAN DNA/RNA-binding protein KIN17 OS=Homo sapiens GN=KIN
PE=1 SV=2 Site of Methyllysine:135

MGKSDFLTPKAIANRIKSKGLQKLRWYQMCQKQCRDENGFKCHCMSESHQRQLLASEN
PQQFMDYFSEEFNRDLELLRRRFGTKRVHNNIVYNEYISHREHIHMNATQWETLTDFTK
WLGREGLCKVDETPKGWYIQYIDRDPETIRRQLELEKQKQDLDEEKTAKFIEEQVRRG
LEGKEQEVPTFTELSRENDEEKVTFNLSKGACSSGATSSKSSTLGPSALKTIGSSASVK
RKESQSSTQSKKSSALDEIMEIEEEKRTARTDYWLQPEIIVKIIITKKLGEKYHK
KKAIVKEVIDKYTAVVKMIDSGDKLKDQTHLETVIPAPGKRILVLNGGYRGNEGTLESI
NEKTFSATIVIETGPLKRRVEGIQYEDISKLA

>sp|Q9P270|SLAI2_HUMAN SLAIN motif-containing protein 2 OS=Homo sapiens
GN=SLAIN2 PE=1 SV=2 Site of Methyllysine:553

MEDVNSNVNADQEVKRLQELVKKLEKQNEQLRSRSGAVQAGSLGPGSPVRAGASIPSSG
AASPRGFPLGSAKSGGGPGSPRRTSSEELRDATSLAAGEGGLLDEVEPLRPDELERL
SGWEEEEESWLYSSPKKLTQMKSVSPLVWCRQVLDYPSPDVECAKKSIIHKLDQTMSA
LKRQNLNPNFNSMSYTSYSPNASSPYSSGFNSPSTPVRPPIVKQLILPGNSGNLKSS
DRNPLSPQSSIDSELSASELDEDSIGSNYKLNVDVQILARMQEEESLRQEYAATTSRR
SSGSSCNSTRRTFSDQELDAQSLDDEDDNMHHAVYPAVNRFSPPRNSPRPSPKQSPRN
SPRSRSPARGIEYSRVSPQPMISRLQQPRLSLQGHPTDLQTSNVKNEEKLRSLPNLSRT
SNTQVDSVKSSRSDSNFQVPPNGGIPRMQPQASAIIPSPGKFRSPAAPSPLALRQPVKAFSN
HGSGSPGSQEITQLTQTSSPQPPMVQSTVSNPPSNINSATLTRPAGTTAMRSGLPRPS
APSAGGIPVPRSKLAQPVRSLPAPKTYGSMKDDSWKDGCV

>sp|Q9Y657|SPIN1_HUMAN Spindlin-1 OS=Homo sapiens GN=SPIN1 PE=1 SV=3 Site of
Methyllysine:7

MKTPFGKTPGQRSRADAGHAGVSANMMKKRTSHKKHRSSVGPSPVSPRRNIVGCRIQH
GWKEGNPVTQWKGTVLDQVPVNPSTLYLIKVDGFDCVYGLELNKDERVSALEVLPRVAT
SRISDAHLADTMIGKAVEHMFETEDGSKDEWRGMVLARAPVMNTWFIITYEKDPVLYMYQ
LLDDYKEGDLRIMPDSNDSPAAREPGEVDSLGVKQVEYAKEDGSKRTGMVIVHVEAKP
SVYFIKFDFFFHIIYYDLVKTS

>sp|Q01518|CAP1_HUMAN Adenyl cyclase-associated protein 1 OS=Homo sapiens
GN=CAP1 PE=1 SV=5 Site of Methyllysine:287

MADMQNLVERLERAVGRLEAVSHTSDMHRGYADSPSKAGAAPYVQAFDSLLAGPVAEYLK
ISKEIGGDVQKHAEMVHTGLKLERALLVTASQCQQAENKLSDLLAPISEIQIKEVITFRE
KNRGSKLFNLSAVSESIQALGWVAMAPKPGPYVKEMNDAAMFYTNRVLKEYKDVKKHV
DWWKAYLSIWTELQAYIKEFHHTGLAWSKTPVAKELSGLPSGPSAGSCPPPPPCPPPP

PVSTISCSYESASRSSLFAQINQGESITHALKHVSDDMKTHKNPALKAQSGPVRSGPKPF
SAPKPQTSPSPKRATKKEPAVLELEGKKWRVENQENSVNLVIEDTELKQVAYIYKCVNTT
LQIKGKINSITVDNCKLGLVFDVVGVIEI INSKDVKQVVMGKVPTISINKTDGCHAYL
SKNSLDCEIVSAKSSEMNLIPTEGGDFNEFPVPEQFKTLWNGQKLVTTVTEIAG

>sp|Q15417|CNN3_HUMAN Calponin-3 OS=Homo sapiens GN=CNN3 PE=1 SV=1 Site of
Methyllysine:158

MTHFNKGPSYGLSAEVKMKIASKYDHQAEEDLRNWIEEVTGMSIGPNFQLGLKDGILCE
LINKLQPGSVKKNVNESSLNWPQLENIGNFIKAIQAYGMKPHDIFEANDLFENGNMTQVQT
TLVALAGLAKTKGFHTTIDIGVKYAEKQTRRFDEGKLGAGQSVIGLQMGTKNCASQAGMT
AYGTRRHLYDPKMQTDPKPFQTTISLQMGTKNGASQAGMLAPGTRRDIYDQKLTLPVDN
STISLQMGTKNVASQKGMVYGLGRQVYDPKYCAAPTEPVIHNGSQGTGTNGSEISDSY
QAEYPDEYHGEYQDDYPRDYQYSDQGIDY

>sp|Q14847|LASP1_HUMAN LIM and SH3 domain protein 1 OS=Homo sapiens GN=LASP1
PE=1 SV=2 Site of Methyllysine:75

MNPNCARCGKIVYPTEKVNCLDKFVHKACFHCETCKMTLNMKNYKGYEKKPYCNAHYPKQ
SFTMVADTPENLRKQSELQSQVRYKEEFKNGKGFVSVVADTPELQRIKKTQDQISNI
KYHEEFKSRMGPSGGEMEPERRDSQDGSSYRRPLEQQQPHHIPTSAPVYQQPQQPVA
QSYGGYKEPAAPVSIQRSAPGGGGKRYRAVDYSAADEDEVSFQDGDITVNVQQIDDGWM
YGTVERTGDTGMLPANYVEAI

>sp|P27816|MAP4_HUMAN Microtubule-associated protein 4 OS=Homo sapiens GN=MAP4
PE=1 SV=3 Site of Methyllysine:809,1011

MADLSLADALTEPSPIEGEIKRDFIATLEAEAFDDVVGETVVGKTDYIPLLDVDEKTGNS
ESKKKPCSETSQIEDTPSSKPTLLANGGHGVEGSDTTGSPTEFLEEKMAYQEYNSQNW
EDTNFCFQPEQVVDPIQTDPFKMYHDDDLADLVFPSSATADTSIFAGQNDPLKDSYGMSP
CNTAVVPQGWSVEALNSPHSEFVVSPEAVAEPPTAVPLELAKEIEMASEERPPAQA
LEIMMGLKTTDMAPSKETEMALAKDMALATKTEVALAKDMESPTKLDVTLAKDMQPSMESDM
ALVKDMELPTEKEVALVKDVRWPTETDVSSAKNVVLPTEVEVAPAKDVTLLKETERASPI
KMDLAPSKDMGPPKENKETERASPIKMDLAPSKDMGPPKENKIVPAKDLVLLSEIEVAQ
ANDIISSTEISSAEKVALSSETEVALARMTLPPETNVILTKDKALPLEAEVAPVKDMAQ
LPETEIAPAKDVAPSTVKEVGLLKDMSPLESETEMALGKDVTPPETEVVLIKNVCLPPEM
EVALTEDQVPALKTEAPLAKDGVTLANNVTPAKDVPLPSETATPVPKDMEDIAQTQKQ
ISEDHLESLQDVGQSAAPTFMISPETVTGTGKKCSLPAEEDSVLEKLGKPCNSQPSE
LSSETSGIARPEEGRPVVSGTNDITTPPNKELPPSPEKTKPLATTQPAKTSTSKAKTQ
PTSLPKQAPPTTIGGLNKKPMSLASGLVPAAPPKRPVAVASARPSILPSKDVKPKPIADAK
APEKRASPSKPASAPASRSGSKSTQTVAKTTTAAAVASTGPSSRSPSTLLPKKPTAIKTE
GKPAEVKMTAKSVPADLSRPKSTSTSSMKTTTSLGTAPAAGVVPSRVKATPMPSRPST
TPFIDKKPTSAPKSTTPRLSRLATNTSAPDLKNVRSKVGSTENIKHQPGGGRKVEKKT
EAAATTRKPESNAVTKTAGPIASAQKQAPAGKVQIVSKKVSYSHIQSKCGSKDNIKHVPGG
GNVQIQNKVDISKVSSKCGSKANIKHKPGGGDVKIESQKLNFKKAQAKVGSLDNVGHL
PAGGAVKTEGGGSEAPLCPGPPAGEEPAISEAAPEAGAPTSASGLNGHPTLSGGGDQREA
QTLDSQIQETSI

>sp|P16949|STMN1_HUMAN Stathmin OS=Homo sapiens GN=STMN1 PE=1 SV=3 Site of
Methyllysine:29

MASSDIQVKELEKRASGQAFELILSPRSKESVPEFPLSPPKKKDLSEETQKKLEAAEER

RKSHEAEVLKQLAEKREHEKEVLQKAIEENNNFSKMAEEKLTHKMEANKENREAQMAAKL
ERLREKDKHIEEVRKNKESKDPADETead

>sp|Q9BX63|FANCI_HUMAN Fanconi anemia group J protein OS=Homo sapiens GN=BRIP1
PE=1 SV=1 Site of Methyllysine:575

MSSMWSEYTIIGGVKIYFPYKAYPSQLAMMNSILRGLNSKQHCLLESPTGSGKSLALLCSA
LAWQQSLSGKPADEGVSEKAEVQLSCCCACHSKDFTNNDMNQGTSRHFNYPSTPPSERNG
TSSTCQDSPEKTTAAKLSAKKQASIYRDENDDFQVEKKRIRPLETTQQIRKRHCFGTEV
HNLDAKVDSGKTVKLNPLEKINSFSPQKPPGHCSRCCCSTKQGNSQESSNTIKKDHTGK
SKIPKIYFGTRTHKQIAQITRELRRRTAYSGVPMILSSRDHTCVHPEVVGNFNRNEKCME
LLDGKNGKSCYFYHGVHKISDQHTLQTFQGMCKAWDIEELVSLGKKLKACPYTARELIQ
DADIIFCPYNYLLDAQIRESMDLNLKEQVVILDEAHNIEDCARESASYSVTEVQLRFARD
ELDSMVNNNIRKKDHEPLRAVCCSLINWLEANAAYLVERDYESACKIWSGNEMLLTLHKM
GITTATFPILQGHFSAVLQKEEKISPIYGKEEAREVPVISASTQIMLKGLFMVLDYLFQ
NSRFADDYKIAIQQYTSWTNQIDISDKNGLLVLPKNKKRSRQKTAVHVLNFWCLNPAVAF
SDINGKVQTIIVLTSGLSPMKFSSELGVTFTIQLEANHIKNSQVWVGTIGSGPKGRNL
CATFQNTETFEFQDEVGALLSVCQTVSQGILCFLPSYKLEKLERWLSTGLWHNLELV
KTVIVEPQGGKTNFDELLQVYDAIKYKGEKDGALLVAVCRGKVSEGLDFSDDNARAVI
TIGIPFPNVKDLQVELKRQYNDHHSKLRGLLPGRQWYEQAYRALNQALGRCIRHRNDWG
ALILVDDRFRNNPSRYISGLSKWVRQQIQHHSTFESALESIAEFSSKHKQVLNVS IKDRT
NIQDNSTLEVTSLKYSTPPYLLAASHLSPENFVEDEAKICVQELQCPKIITKNSPLPS
SIIISRKEKNDPVFLEEAGKAEKIVISRSTSPTFNKQTKRVSWSFNSLQYFTGKIPKAT
PELGSSSENSASSPPRFKTEKMEKTVLPFTDKCESSNLTVNTSFGSCPQSETIISSLKID
ATLTRKNHSEHPLCSEEALDPDIELSLVSEEDKQSTS NRDFETEAEDESIFTPELYDPE
DTDEEKNDLAETDRGNRLANNSDCILAKDLFEIRTIKEVDSAREVKAEDCIDTKLNGILH
IEESKIDDDIGNVKTWINELELGKTHEIEIKNFKPSKSKNGMFPGFK

>sp|Q86XP3|DDX42_HUMAN ATP-dependent RNA helicase DDX42 OS=Homo sapiens
GN=DDX42 PE=1 SV=1 Site of Methyllysine:708

MNWNKGGPGTKRFGFGGFAISAGKKEEPKLPQQSHSAFGATSSSSGFGKSAPPQLPSFY
KIGSKRANFDEENAYFEDEEEDSSNVDPYIPAENSPTRQQFHSKPVDSDDDDPLEAFM
AEVEDQAARDMKRLEEKDKERKNVKGIRDDIEEEDDQEAYFRYMAENPTAGVVQEEEDN
LEYSDGNPIAPTKKIIDPLPIDHSEIDYPPFEKNFYNEHEEITNLTPQQQLIDLRHKLN
LRVSGAAPP RPSSFAHFGFDEQLMHQIRKSEYTQPTPIQCQGVVVALSGRDMIGIAKTG
SGKTAAFIWPMLIHIMDQKELEPGDGPIAVIVCPTRELCCQIHAECKRFGKAYNLRVAV
YGGGSMWEQAKALQEGAEIVVCTPGRLIDHVKKKATNLQRVSYLVFDEADRMFDMGFYQ
VRSIASHVRPDRQTLFSATFRKKIEKLARDILIDPIRVVQGDIGEANEDVTQIVEILHS
GPSKWNWLTRRLVEFTSSGSVLLFVTKKANAEELANNLKQEGHNLGLLHGDMDQSERNKV
ISDFKKKDIPVLVATDVAARGLDIPSIKTVINYDVARIDIDTHTRIGRTGRAGEKVAYT
LLTPKDSNFAGDLVRNLEGANQHVSKELLDLAMQNAWFRKSRFKGGKGLNIGGGGLGY
RERPLGSENMDRGNVMSNYEAYKPSGTAMGDRLTAMKAAFQSQYKSHFVAASLSNQK
AGSSAAGASGWSAGSLNSVPTNSAQQGHNSPDPVTSAAKGIPIFGNTGNISGAPVTYP
SAGAQGVNNTASGNSREGTGGNGKRERYTENRGSSRHSGETGNRHSDSPRHGDGGRH
GDGYRHPPESSRHTDGHHRHGENRHGGSAGRHGENRGANDGRNGESRKEAFNRESKMEPKM
EPKVDSSKMDKVDKTDKTADGFAVPEPPKRKRSRWS

>sp|Q9H9B1|EHMT1_HUMAN Histone-lysine N-methyltransferase EHMT1 OS=Homo sapiens

SRDIRTGEELGFDYGDRFWDIKSKYFTQCQCGSEKCKHSAEIALEQSRLARLDPHPELLP
ELGSLPPVNT

>sp|Q9H9T3|ELP3_HUMAN Elongator complex protein 3 OS=Homo sapiens GN=ELP3 PE=1
SV=2 Site of Methyllysine:229

MRQKRKGDLSPAELMMLTIGDVIKQLIEAHEQGKDIDLNKVKTAAKYGLSAQPRLVDI
IAAVPPQYRKVLMPLKAKPIRTASGIAVAVMCKPHRCPHISFTGNICVYCPGGPDSDF
EYSTQSYTGYEPTSMRAIRARYDPFLQTRHRIEQLKQLGHSVDKVEFIVMGGTFMALPEE
YRDYFIRNLHDALSGHTSNNIYEAVKYSERSLTKCIGITITETRPDYCMKRHLSMMLTYGC
TRLEIGVQSVYEDVARDTNRGHTVKAVCESFHAKDSGFKVVAHMMPDLPNVGLERDIEQ
FTEFFENPAFRPDGLKLYPTLVIRGTGLYELWKSGRYKSYSPSDLVELVARILALVPPWT
RVYRVQRDIPMLVSSGVEHGNLRELALARMKDLGIQCRDVRTREVGIQEIHHKVRPYQV
ELVRRDYVANGGWETFLSYEDPDQDILIGLLRLKCSSETFRFELGGGVIVRELHVYGS
VVPVSSRDPTKQHQGFGLLMEEAERIAREEHSGKIAVISGVGTRNYRKYGYRLQGP
YMKMLK

>sp|Q92800|EZH1_HUMAN Histone-lysine N-methyltransferase EZH1 OS=Homo sapiens
GN=EZH1 PE=1 SV=2 Site of Methyllysine:736

MEIPNPPTSKCITYWKRKVKSEYMRLRQLKRLQANMGAKALYVANFAKVQEKTIILNEEW
KKLRVQPVQSMKPVSGHPFLKKCTIESIFPGFASQHMLMRLNTVALVPIMYSWSPLQQN
FMVEDETVLCNIPYMGDEVKEEDEFIEELINNYDGKVHGEEMIPGSVLISDAVFLELV
DALNQYSDEEEEGHNDTSDGKQDDSKEDLPVTRKRKRHAIEGNKSSKKQFPNDMIFSAI
ASMPFENGVPDDMKERYRELEMSDPNALPPQCTPNIDGPNKSVQREQLHSFHTLFCR
RCFKYDCFLHPPHATPNVYKRKNKEIKIEPEPCGTDCFLLEGAKEYAMLHNPRSKCSGR
RRRRHHIVSASCSNASASAVAETKEGSDRDTGNDWASSSSEANSRCQTPTKKASPAPP
QLCVVEAPSEPVEWTGAEESLFRVFHGTFFNNFCSIARLLGKTCKQVFQFAVKESLILK
LPTDELMNPSQKKRKHRLWAAHCRKIQLKKDSSSTQVYNYQPCDHPDRPCDSTCPCIMT
QNFCEKFCQCNPDQNRFPGCRCKTQCNTKQCPCYLAVRECDPLCLTCGASEHWDCCKV
SCKNCSIQRGLKHLHLLAPSDVAGWGTFIKESVQKNEFISEYCGELISQDEADRRGKVYD
KYMSSFLFNLNDFVVDATRKGNKIRFANHSVNPNCYAKVVMVNGDHRIGIFAKRAIQAG
EELFFDYRYSQADALKYVGIERETDVL

>sp|Q15910|EZH2_HUMAN Histone-lysine N-methyltransferase EZH2 OS=Homo sapiens
GN=EZH2 PE=1 SV=2 Site of Methyllysine:510

MGQTGKKSEKGPVCRKRVKSEYMRLRQLKRFRRRADEVKSMFSSNRQKILERTEILNQEW
KQRRIQPVHILTSVSSLRGTRECSVTSDDLDFPTQVIPLKTLNAVASVPIMYSWSPLQQNF
MVEDETVLHNPYMGDEVLQDGTIEELIKNYDGKVHGDRECGFINDEIFVELVNALGQ
YNDDDDDDGDDPEEREKQKQDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDKGTAEEL
KEYKELTEQQLPGALPPECTPNIDGPNKSVQREQLHSFHTLFCRRCFKYDCFLHPPH
ATPNTYKRKNTETALDNKPCGPQCYQHLEGAKEFAAALTAERIKTPPKRPGRRRGRLPN
NSSRPSTPTINVLESKDTSDREAGTETGGENNDKEEEEKDETSSSSEANSRCQTPIKM
KPNIEPPENVEWGSAGEASMFVRLIGTYDNFCAIARLIGTKTCRQVYEFVKESSIIAPA
PAEDVDTPPRKKRKHRLWAAHCRKIQLKKDSSNHVYNYQPCDHPRQPCDSSCPCVIAQ
NFCEKFCQCSSECNRFPGCRCKAQCNTKQCPCYLAVRECDPLCLTCGAADHWDSKNVS
CKNCSIQRGSKHLHLLAPSDVAGWGFIFKDPVQKNEFISEYCGEIIISQDEADRRGKVYDK
YMCSFLFNLNDFVVDATRKGNKIRFANHSVNPNCYAKVMMVNGDHRIGIFAKRAIQTGE
ELFFDYRYSQADALKYVGIEREMEIP

>sp|094761|RECQ4_HUMAN ATP-dependent DNA helicase Q4 OS=Homo sapiens GN=RECQ4
PE=1 SV=1 Site of Methyllsine:114

MERLRDVRERLQAWERAFRRQRGRPSQDDVEAAPEETRALYREYRTLKRTTGQAGGGLR
SSESLPAAAEAEPEPRCWGPHLNRAATKSPQPTPGRSRQGSVPDYGQRLKANLKGTLQAG
PALGRRPWPLGRASSKASTPKPPGTGPVPSFAEKVSDEPPQLPEPQPRPGRLQHLQASLS
QRLGSLDPGWLQRCHSEVPDFLGAPKACRPDLGSEESQLLIPGESAVLPGAGSQGPEAS
AFQEVSIKRVGSPQSSSSGGEKRRWNEEPWESPAQVQQESSQAGPPSEGAGAVAVEEDPPG
EPVQAQPPQPCSSPSNPRYHGLSPSSQARAGKAEGTAPLHIFPRLARHDRGNYVRLNMKQ
KHVYRGRALRSRLLRKQAWKQKWRKKGECFGGGATVTTKESCFLNEQFDHAAQCPRPA
SEEDTAVGPEPLVPSQPVEVPSLDPTVLPYLSLPGSGLAETPAEVFQALEQLGHQA
FRPQQERAVMRILSGISTLLVLPTGAGKSLCYQLPALLYSRSPCLTLVVSPLLSLMDQ
VSGLPCLKAACIHSMTKQRESVLKIRAAQVHVLMLTPEALVGAGGLPAAQLPPVA
FACIDEAHCLSQWSHNFRCYLRVCKVLRERMVHCFGLTATATRRASDVAQHLAVAE
EPDLHGPAVPTNLHLSVSMRDRDQALLTLLQGKRFQNLDSIIYCNRRREDTERIAALL
RTCLHAAWVPGSGGRAPKTTAEAYHAGMCSRERRRVQRAFMQQLRVVAVTAVFGMLDR
PDVRAVLHLGLPPSFESYVQAVGRAGRDGQPAHCHLFLQPQGEDLRELRRHVHADSTDFL
AVKRLVQRVFPACTCTRPPSEQEGAVGGERPVPKYPPQEAQLSHQAAPGPRRVCMGH
ERALPIQLTVQALDMPEEA IETLLCYLELHPHHWLELLATTYTHCRLNCPGGPAQLQALA
HRCPLAVCLAQQLPEDPGQSSSVFDMVKLVDSMGWELASVRRALCQLQWDHEPRTGV
RRGTGVLVEFSELAFLRSPGDLTAEKDQICDFLYGRVQARERQALARLRRTFQAFHSV
AFPCGPLEQQDEERSTRKDLLGRYFEEEEQEPGGMEDAQGPEPGQARLQDWEDQVR
CDIRQFLSLRPEEKFSRAVARIFHGIGSPCYPAQVYGQDRRFWRKYLHLSFHALVGLAT
EELLQVAR

>sp|Q15047|SETB1_HUMAN Histone-lysine N-methyltransferase SETDB1 OS=Homo
sapiens GN=SETDB1 PE=1 SV=1 Site of Methyllsine:1170, 1178

MSSLPGCIGLDAATAVESEEIAELQQAVVEELGISMEELRHFIDEELEKMDCVQQRKQ
LAELETWVIQKESEVAHVDQLFDDASRAVTNCESLVKDFYSKLGQLYRDSSEDESSRPT
EIEIPDEDDVLSIDSGDAGSRTPKDQKLREAMAALRKSADVQKFMDAVNKKSSSQDL
HKGTLSQMSGELSKDGLIVSMRILGKRTKTWHKGTLIATQTVGPGKKYKVKFDNKGKS
LLSGNHIAYDYHPPADKLYGSRVVAKYKGNQVWLYAGIVAETPNVKNKLRFLIFFDDG
YASYVTQSELYPICRPLKKTWEDIEDISCRDFIEEYVTAYPNRPMVLLKSGQLIKTEWEG
TWWKSRVEEVDGSLVRILFLDDKRCEWIYRGSTRLEPMFSMKTSSASALEKKQQLRTRP
NMGAVRSKGPVVYQTQDLTGTGTQFKPVEPPQPTAPPAPPFPAPPLSPQAGSDLESQ
AQSRKQVAKKSTFRPGSVGSHSSPTSPALSENVGGKPGINQTYRSLPGSTASAPAPS
ALPAPPAPPVFGMLERAPAEPSYRAPMEKLFYLPHVCSYTCLSRVRPMRNEQYRGKNPL
LVPLLYDFRRMTARRRVNRKMGFHV IYKTPCGLCLRTMQEIERYL FETGCDFLFLEMFL
DPYVLVDRKQFYKPFYYILDIYTKEDVPLSCVNEIDTTPPPQVAYSKERIPGKGVFIN
TGPEFLVGCDCCKDGRDQKSKCACHQTLIQATACTPGGQINPNSGYQYKRLEECLPTGVYE
CNKRCKCDPNMCTNRLVQHGLQVRLQLFKTQNKGWGIRCLDDIAKGSFVCIYAGKILTDD
FADKEGLEMGDEYFANLDHIESVENFKEGYESDAPCSSDSSGVLDKQEDGNSGTEDPEE
SNDDSSDNFCKDEDFSTSSVWRSYATTRQTRGQKENGLETTSKDSHPPDLGPPHIPVP
PSIPVGGCNPSSSEETPKNKVASWLSCNSVSEGGFADSDSHSSFKTNEGGEGRAGGSRME
AEKASTSGLGIKDEGDIKQAKKEDTDDRNMKSVVTESSRYGYNPSPVKPEGLRRPPSKT
SMHQSRRLMASAQNPDDVLTLSSTESEGESGTSRKPTAGQTSATAVDSDDIQTISSGS

EGDDFEDKKNMTGPMKRQVAVKSTRGFALKSTHGIAIKSTNMASVDKGESAPVRKNTRQF
YDGEESCYIIDAKLEGNLGRYLNHSCSPNLFVQNVFVDTHDLRFPWVAFFASKRIRAGTE
LTWDYNYEVGSVEGKELLCCCGAIECRGRLL

>sp|Q93075|TATD2_HUMAN Putative deoxyribonuclease TATDN2 OS=Homo sapiens
GN=TATDN2 PE=2 SV=2 Site of Methyllysine:56

MASERGVKHNWSSSTSEGCPKRKRSCLREPCDVAPSSRPAQRSASRSGGPSSPKRLKAQKE
DDVACSRRLSWGSSRRRNNSSSFSPHFLGPGVGAASKGCLIRNTRGFLSSGGSPLRPA
NASLEEMASLEEEACSLKVDKSSHNSTNSEFAAEAEQNDTIEEPNKVQKRKRDRLRD
QGSTMIIYLKAIQIGLGSMPKRKGEAATRAKPSAAEHPSHGEGPARSEGPAKTAEGAARS
VTVTAAQKEKDATPEVSMEEKTVPERSFFYDRRVVIDPQEKPSPEPLGDRRTVIDKCSF
PLEFLDDSDSHLEIQKHKDREVMHPSSGSDWSDVEEISTVRFSEQEPPVSLKPSAVPEP
SSFTTDYVMYPPHLYSSPWCDYASYWTSSPKPSSYPSTGSSSNDAAQVGKSSRSRMSDYS
PNSTGSVQNTSRDMEASEEGWSQNSRSFRFRSSEEREVEKEKRTFQEEMPPRCPGGHASS
SLPKSHLEPSLEEGLDTHCHLDMLYSKLSFGTFTKFRKIYSSSFPKEFQGCISDFCDP
RTLTDCLWEELLKEDLVWGAFGCHPHFARYYSESQERNLLQALRHPKAVAFGEMGLDYSY
KCTTPVPEQHKVFERQLQLAVSLKKPLVIHCREADEDLLEIMKKFVPPDYKIHRHCFTGS
YPVIEPLLKYFPNMSVGFTAVLTYSSAWEAREALRQIPLERIIVETDAPYFLPRQVPKSL
CQYAHPLGLALHTVREIARVKDQPLSLTLAALRENTSRLYSL

>sp|P60174|TPIS_HUMAN Triosephosphate isomerase OS=Homo sapiens GN=TPI1 PE=1
SV=3 Site of Methyllysine:231

MAEDGEEAEFHFAALYISGQWPRLRADTDLQRLGSSAMAPSRKFFVGGNWKMNKRKQSLG
ELIGTLNAAKVPADTEVVCAPPTAYIDFARQKLDPKIAVAAQNCYKVTNGAFTGEISPGM
IKDCGATWVVLGHSERRHVFGESEDELIGQVAHALAEGLGVIACIGEKLDEREAGITEKV
VFEQTKVIADNVKDWKSVLVEPVWAIIGTGKTATPQQAQEVHEKLRGWLKSNVSDAVAQ
STRIIYGGSVTGATCKELASQPDVDGFLVGGASLKPEFVDIINAKQ

>sp|Q9Y2L1|RRP44_HUMAN Exosome complex exonuclease RRP44 OS=Homo sapiens
GN=DIS3 PE=1 SV=2 Site of Methyllysine:331

MLKSKTFLKKTRAGGVMKIVREHYLRDDIGCGAPGCAACGGAHEGPALEPQPDPASSVC
PQPHYLLPDTNVLHQIDVLEDPAIRNVIQLTVLQEVNRNSAPVYKRIRDVNTNNQEKHF
YTFTNEHHRETYVEQEQQENANDRNDRAIRVAAKWYNEHLKMSADNLQVIFITNDRRN
KEKAIEEGIPAFTCEEYVKSLTANPELIDRLACLSEEGNEIESGKIFSEHLPLSKLQQG
IKSGTYLQGTFRASRENYLEATVWIHGDNEENKEIILQGLKHLNRAVHEDIVAVELLPKS
QWVAPSSVVLHDEGQNEEDVEKEEETERMLKTAVSEKMLKPTGRVVGIIKRNWRPYCGML
SKSDIKESRRHLFTPADKRIPIRIETRQASTLEGRIIVAIIDGWPRNSRYPNGHFVRNL
GDVGEKETETEVLLLEHDVPHQPFSQAVLSFLPKMPWSITEKDMKNREDLRHLCICSVDP
PGCTDIDDALHCRELENGNLEVGVHIADVSHFIRPGNALDQESARRGTTVYLCEKRIDMV
PELLSSNLCSLKCVDRLAFSCIWEMNHNAEILKTKFTKSVINSKASLTAEALRIDS
NMNDDITSLRGLNKLAKILKKRRIEKGALTLSSPEVRFHMDSETHDPIDLQTKELRET
SMVEEFMLLANISVAKKIHHEFSEHALLRKHPAPPSNYEILVKAARSRLNLEIKTDTAKS
LAESLDQAESPTFPYLNLLRILATRCMMQAVYFCSGMNDNFHHYGLASPIYTHFTSPIR
RYADVIVHRLLAIVAGACTYPELTDKHLADICKNLNFRHKMAQYAQRASVAFHTQLFF
KSKGIVSEEAYILFVRKNAIVVLPKYGLEGTVFFEEKDKPNPQLIYDDEIPSLKIEDTV
FHVFDKVKVKIMLDSSNLQHQKIRMSLVEPQIPGISIPTDTSNMDLNGPKKKMKLKG

>sp|Q96N67|DOCK7_HUMAN Dedicator of cytokinesis protein 7 OS=Homo sapiens

GN=DOCK7 PE=1 SV=4 Site of Methyllysine:381

MAERRAFAQKISRVAEEVRKQISGQYSGSPQLLKNLNI VGNISHHTTVPLTEAVDPVDL
EDYLITHPLAVDSGLRDLIEFPPDDIEVVYSPRDCRTLVS AVPEESEMDPHVRDCIRSY
TEDWAI VIRKYHKLGTGFNPNTL DKQKERQKGLPKQVFESDEAPDGNSYQDDQDLKRRS
MSIDDTPRGSWACSF DLKNSLPDALLPNLLDRTPNEEIDRQNDQ RKS NRHKELFALHP
SPDEEPIERLSVPDIPKEHFGQRLLVKCLSLKFEIEIEPIFASLALYDVKEKKKISENF
YFDLNSEQMKGLLRPHVPPAAITTLARSAIFSITYPSQDVFLVIKLEKVLQQDIGECAE
PYMIFKEADATKNKEKLEKLSQADQFCQRLGKYRMPFAWTAIHLMNIVSSAGSLERDST
EVEISTGERKGSWSERRNSSIVGRRSLERTTSGDDACNLTSFRPATLTVTNFFKQEGDRL
SDEDLYKFLADMRRPSSVLRRLRPIT AQLKIDISPAPENPHYCLTPELLQVKLYPDSRVR
PTREILEFPARDVYVNPNTTYRNLLYIYPQSLNFANRQGSARNITVKVQFMYGEDPSNAMP
VIFGKSSCSEFSKEAYTAVVYHNRSPDFHEEIKVKLPATLTDHHL LFTFYHVSCQQKQN
TPLETPVGYTWIPMLQNGRLKTGQFC L PVSLEKPPQAYSVLSPEVPLPGMKWVDNHKGVF
NVEVVAVSSIHTQDPYLDKFFALVNALDEHLFPVRIGDMRIMENNL ENELKSSISALNSS
QLEPVVRFHL LLDKILLVIRPPVIAGQIVNLGQASFEAMASIINRLHKNLEGNHQHG
RNSLLASYIHVFRLPNTY PNSSSPGGGLGGSVHYATMARS AVRPASLNLNRSRSLSNS
NPDISGTPTSPDDEVERSIIGSKGLDRSNSWVNTGGPKAAPWGSNPSPSAESTQAMDRSCN
RMSHTTETSSFLQTLTGRLPTKKLFHEELALQWVVCSGSVRESALQQAWFFFELMVKSMV
HHLFYNDKLEAPKRSRPFERFMDIAALVSTIASDIVSRFQK DTEMVERLNTSLAFFLND
LLSVMDRGFVFSLIKSCYKQVSSKLYSLPNPSVLVSLRDLFLRIIC SHEHYVTLNLP CSL
LTPPASPSVSSATSQSSGFSTNVQDQKI ANMFELSV PFRQQHYLAGLV LTELAVILD P
DAEGLFGLHKKVINMVHNLSSHSDPRYSDPQIKARVAMLYLPLIGIIMETVPQLYDFT
ETHNQGRGPIC IATDDYESESGSMISQTVAMA IAGTSVPQLTRPGSFLLTSTSGRQH TTF
SAESSRLLICLLWV LKNADETVLQKWF TDL SVLQLNRLLDLLYLCVSCFEYKGGKVFER
MNSLTFKKS KDMRAKLEEA I LGSIGARQEMVRRSRGQLGTYT IASPPERSPSGSAFGSQE
NLRWRKDMTHWRQNT EKLDKSRAEIEHEALIDGNLATEANLI ILDTLEIVVQTVSVTESK
ESILGGVLKVL LHSMACNQSAVYLQHC FATQRALVSKFPELLFEEETE QCADLCLRLLRH
CSSSIGTIRSHASASLYLLMRQNF EIGNNFARVKMQVTMSLSSLVGTSQNFNEEFLRRSL
KTILTYA EEDLELRETTFPDQVQDLVFNLHMILSDTVKMEHQEDPEMLIDL MYRIAKGY
QTSPDLRLTWLQNMAGKHSERSNHAEAAQCLVHSAALVAEYLSMLEDRKYL PVGCVT FQN
ISSNVLEESA VSDDVSPDEEGICSGKYFTESGLVGLLEQAAASF SMAGMYEAVNEVYKV
LPIIHEANRDAKKLSTIHGKLQEA FSKIVHQSTGWERMFGTYFRVGFYGT KFGDLDEQEF
VYKEPAITKLA EISHRLEGFYGERFGEDVVEVIKDSNPVDKCKLDPNKAYIQITYVEPYF
DTYEMKDRITYFDKNYNLRRFMYCTPFTLDGRAHGELHEQFKRKTILTTSHAFPIKTRV
NVTHKEEII LTPIEVAIEDMQKKTQELAFATHQDPADPKMLQMV LQGSVGT TVNQGPLEV
AQVFLSEIPSDPKLFRH HNKLR LCFKDFTKRCE DALRKNKSLIGPDQKEYQRELERNYHR
LKEALQPLINRKIPQLYKAVLPVTCHRDSFSRMSLRKMDL

>sp|Q7Z699|SPRE1_HUMAN Sprouty-related, EVH1 domain-containing protein 1

OS=Homo sapiens GN=SPRED1 PE=1 SV=2 Site of Methyllysine:224
MSEETATSDNDNSYARVRVAVMTRDDSSGGWLP LGGSLSSVT VFKVPHQEENG CADFFI
RGERLRDKMVVLECLMKDLIYNKVTPTFH HWKIDDKKFG LTFQSPADARAFDRGIRRAI
EDISQGCPE SKNEAEGADDLQANEEDSSSSLVKDHLFQQETVVTSEPYRSSNIRPSPFED
LNARRVYMQSQANQITFGQPGLDIQSRSM EYVQRQISKECGSLKSQNRVPLKSIRHVSFQ
DEDEIVRINPRDILIRRYADYRHPDMWKNDLERDDADSSIQFSKPD SKKSDYLYSCGDET

KLSSPKDSVVFVKTPSSLKIKKSKRRKEDGERSRCVYCQERFNHEENVRGKCQDAPDPIK
RCIYQVSCMLCAESMLYHCMSDSEGFSDPCSCDTSDDKFCLRWLALVALSFIVPCMCCY
VPLRMCHRCGEACGCCGGKHAAG

>sp|A1X283|SPD2B_HUMAN SH3 and PX domain-containing protein 2B OS=Homo sapiens
GN=SH3PX2B PE=1 SV=3 Site of Methyllsine:619

MPPRRSIVEVKVLDVQKRRVFNKHYVYIIRVTWSSGSTEAIYRRYSKFFDLQMQMLDKFP
MEGGQKDPKQRIIPFLPGKILFRRSHIRDVAVKRLIPIDEYCKALIQLPPIYSQCDEVLQ
FFETRPEDLNPPKEEHIGKKKSGGDQTSVDPVLEQYVVVANYQKQESSEISLSVGQVVD
IIEKNESGWWFVSTAEQGWVPATCLEGGQDGVQDEFSLQPEEEEEKYTVIYPYTARDQDEM
NLERGAVVEVIQKNELEGGWIKIRYQKKEGWAPASYLKKNSGEPLPPKPGSPSPHPGALDL
DGVSRQQNAVGREKELLSSQRDRFEGRPVDPGDAKQSRPKMRQRPVPRRDMTIPRGLNL
PKPPIPPQVEEYYTIAEFQTTIPDGISFQAGLKVEVIEKNLSGWWYIQIEDKEGWAPAT
FIDKYKTSNASRPNFLAPLPHVETQLRLGEEAALENNTGSEATGPSRPLPDAPHGVMDS
GLPWSKDWKSGKVDLRKASSDMSASAGYEEISDPDMEEKPSLPPRKESIKSEGELLERE
RERQRTEQLRGPTKPPGVILPMPAKHIPPARDSRRPEPKPKSRLFQLKNDMGLECGH
KVLAKEVKKPNLRPISKSKTDLPEEKPDATPQNPFLKSRPQVRPKPAPSPKTEPPQGEDQ
VDICNLRSKLRPAKSQDKSLLDGEGPQAVGGQDVAFSRSFLPGEGPGRADRTGKQDGLS
PKEISCRAPRPAKTTPVSKSVVPLQEAQQRPVPPRRPPPKTSSSRPLPEVRG
PQCEGHESRAAPTGRALLVPPKAKPFLSNLSLGGQDDTRGKGSGLPWGTGKIGENREKAA
AASVPNADGLKDSLYAVAVDFEGDKDTSSFQEGTVFEVREKNSSGWWFCQVLSGAPSWEG
WIPSNYLRKKP

>sp|Q9NPJ3|ACO13_HUMAN Acyl-coenzyme A thioesterase 13 OS=Homo sapiens
GN=ACOT13 PE=1 SV=1 Site of Methyllsine:111

MTSMTQSLREVIKAMTKARNFERVLGKITLVSAAAPGKVICEMKVEEHTNAIGTLHGGLT
ATLVDNISTMALLCTERGAPGVSVMNITYMSPAKLGEDIVITAHVLKQGKTLAFTSVDL
TNKATGKLIAGRHKHLGN

>sp|P04075|ALDOA_HUMAN Fructose-bisphosphate aldolase A OS=Homo sapiens
GN=ALDOA PE=1 SV=2 Site of Methyllsine:330

MPYQPALTPEQKKELSDIAHRIVAPGKGIILAADESTGSIKRLQSIGTENTEENRRFYR
QLLLTADDRVNPCIGGVILFHETLYQKADDGRFPFQVIKSKGGVVGKVDKGVVPLAGTN
GETTTQGLDGLSERCAQYKKGADFAKWRCVLKIGEHTPSALAIMENANVLARYASICQQ
NGIVPIVEPEILPDGDHDLKRCQYVTEKVLAAVYKALSDHHIYLEGTLKPNMVTTPGHAC
TQKFSHEEIAMATVTALRRTVPPAVTGITFLSGGQSEEEASINLAINKCPLLKPWALTF
SYGRALQASALKAWGGKKNLAAAQEEYVKRALANSLACQGYTPSGQAGAAASESLFVS
NHAY

>sp|P38117|ETFB_HUMAN Electron transfer flavoprotein subunit beta OS=Homo
sapiens GN=ETFB PE=1 SV=3 Site of Methyllsine:202

MAELRVLVAVKRVIDYAVKIRVKPDRGTGVVTDGVKHSMPFCEIAVEEAVRLKEKKLVKE
VIAVSCGPAQCQETIRTALAMGADRGIVVEVPPAEAERLGPLQVARVLAKLAEKEKVDLV
LLGKQAIIDDCNQGTQMTAGFLDWPQGTAFASQVTLGDKLKVEREIDGGLETLRLKLPV
VTADLRLNEPRYATLPNIMKAKKKKIEVIKPGDLGVDLTSKLSVISVEDPPQRTAGVKVE
TTEDLVAKLKEIGRI

>sp|Q9Y512|SAM50_HUMAN Sorting and assembly machinery component 50 homolog
OS=Homo sapiens GN=SAMM50 PE=1 SV=3 Site of Methyllsine:255

MGTVHARSLEPLPSSGPDFGGLGEEAEFVEVEPEAKQEILENKDVVVQHVFHDGLGRTKD
DIIICEIGDVFKAKNLIIEVMRKSHEAREKLLRLGIFRQVDVLIDTCQGDDALPNGLDVTF
EVELRRLTGSYNTMVGNNESMVLGKLPNLLGRAEKVTFQFSYGTKETSIGLSFFKPR
PGNFERNFSVNLKYVTGQFPWSSSLRETDRGMSAEYSFPIWKTSHTVKWEVWRELGCLSR
TASFAVRKESGHSLKSSLSHAMVIDSRNSSILPRRGALLKVNQELAGYTGDDVFSFIKEDF
ELQLNKQLIFDSVFSASFVGGMLVPIGDKPSSIADRFYLGGPISRGFMSHSIGPQSEGD
YLGGEAYWAGGLHLYTLPFRPGQGGFELFRTHFFLNAGLNCNLNYGEGPKAHIRKLAE
CIRWSYGAGIVLRLGNIARLELNYCVPMGVQTGDRICDGVQFGAGIRFL

>sp|043929|ORC4_HUMAN Origin recognition complex subunit 4 OS=Homo sapiens
GN=ORC4 PE=1 SV=2 Site of Methyllysine:7

MSSRKSNSLIHTECLSQVQIRLRERFCRQSPHSNLFVGVQVQYKHLSELLKRTALHGES
NSVLIIGPRGSGKTMLINHALKELMEIEEVENLQVHLNGLLQINDKIALKEITRQLNL
ENVVGDVKGFSFAENLSFLEALKKGDRTSSCPVIFILDEFDLFAHKNQTLNLYNLFDIS
QSAQTPIAVIGLTCRLDILELLEKRVKSRFHRQIHLNMSFGFPQYVKIFKEQLSLPAEF
PDKVFAEKWNENVQYLSEDRSVQEVQKHFNISKNLRLHMLLMLALNRVTASHPFMTAV
DLMEASQLCSMDSKANIVHGLSVLEICLIAMKHLNDIYEEEPFNFMVYNEFQKQVQRK
AHSVYNFEKPVVMKAFEHLQLELIKPMERTSGNSQREYQLMKLLLDNTQIMNALQKYPN
CPTDVRQWATSSLSWL

>sp|095248|MTMR5_HUMAN Myotubularin-related protein 5 OS=Homo sapiens GN=SBF1
PE=1 SV=3 Site of Methyllysine:1222

MARLADYFVLVAFGPHRPGSGEGGQILQRFPEKDWDENPFPGIELFCQPSGWQLC
PERNPPTFFVAVLTDINSERHYCACTFWEPAEPSQETTRVEDATEREEEGDEGGQTHLSPTA
PAPSAQLFAPKTLVLVSRLDHTVEFRNSLGLIYAIHVEGLNVCLENVIGNLLTCTVPLAG
GSQRTISLGAGDRQVIQTPLADSLPVSRCVALLFRQLGITNVLSLFCALTEHKVFLS
RSYQRLADACRGLLALLFPLRYSFTYVPIIPAQLLEVLSTPTPIIGVNAAFQAETQELL
DVIVADLDGGTVTIPECVHIPPLPEPLQSQTHSVLSMVLDPLELADLAFPPPTTSTSSL
KMQDKELRAVFLRLFAQLLQGYRWCLHVRIHPEPVIHFHKAFLGQRGLVEDDFLMKVL
EGMAFAGFVSRGVYRPTDLFDELVAHEVARMRADENHPQRVLRHVQELAEQLYKNENP
YPAVAMHKVQRPGESSHRRVPRPRLDEGTVQWIVDQAAAKMQGAPPAVKAERTTVP
SGPPMTAILERCSGLHVNSARRLEVVRNCISYVFEGKMLEAKKLLPAVLRALKGRAARRC
LAQELHLHVQNRVAVLDHQQDFVVRMMNCCLQDCTSLDEHGIAAALLPLVTAFCRKLSP
GVTQFAYSVCVQEHVWSTPQFWEAMFYGDVQTHIRALYLEPTEDLAPAQEVGEAPSQEDE
RSALDVASEQRRLWPTLSREKQQLVQKEESTVFSQAIHYANRMSYLLPLDSSKSRLLR
ERAGLDLESASNSLVNMSMAGSVAESYDTESGFEDAETCDVAGAVVRFINRFVDKCTE
SGVTS DHLKGLHVMVPDIVQMHITLEAVQRESRRLPIQKPKLLRPRLLPGEECVLDGL
RVYLLPDGREGAGGSAGGPALLPAEGAVFLTTRYVIFTGMPDPLVGEQVVVRSFPVAA
LTKEKRISVQTPVDQLLQDGLQLRSCFQLLKMAFDEEVGSDSAELFRKQLHKLRYPPDI
RATFAFTLGSAAHTPGRPRVTKDKGPSLRTLRSNLVKNAKKTIGRQHVTRKKYNPPSWEH
RGQPPPEDQEDEISVSEELPSTLTPSSALKPSDRMTMSSLVERACCRDYQRLGLGLTSS
SLSRAKSEPFRI SPVNRMYAICRSYPGLLIVPQSVQDNALQRVSRCYRQNRFPVVCWRSG
RSKAVLLRSGGLHGKGVVGLFKAQNAPSPGQSQADSSSLEQEKYLQAVVSSMPRYADASG
RNTLSGFSSAHMGSHGKWSVRTSGRSSGLGTDVGSRLAGRDALAPPQANGPPDPGFLR
PQRAALYILGDKAQLKGVRSPLQWELVPIEVFEARQVKASFKLLKACVPGCPAAEPS
PASFLRSLDSEWLIQIHKLLQVSVLVVELLDSSGSSVLVGLDGDWITTVVSLVQLLSD

PFYRTLEGFRLLEKEWLSFGHRFHRGAHTLAGQSSGFTPVFLQFLDCVHQVHLQFPME
FEFSQFYLKFLGYHHVSRFRFTFLDSDYERIELGLLYEEKGERRGQVPCRSVWEYVDRL
SKRTPVFHNYMYAPEDAELRPYSNVSNLKVWDFYTEETLAEGPPYDWELAQGPPEPPEE
ERSDGGAPQSRRRVWPCYDSCPRAQPDASRLLEELQRLETELGQPAERWKDTWDRVKA
AQRLEGRPDGRGTPSSLLVSTAPHHRRSLGVYLQEGPVGSTLSLSLSDSQSSGSTSGSR
QAARRSTSTLYSQFQTAESENRSYEGTLYKKGAFMKPWKARWFVLDKTKHQLRYDHRVD
TECKGVIDLAEVEAVAPGTPTMGAPKTVDEKAFFDVKTTRRVYNFCAQDVPSAQQWVDRI
QSCLSDA

>tr|C9JFZ1|C9JFZ1_HUMAN Synaptojanin-1 OS=Homo sapiens GN=SYNJ1 PE=1 SV=1 Site
of Methyllysine:565

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SEHAADIQMVNFYHQMVKGGKAEKLSVLPQVQKFLDYGFFYFNGSEVQRCQSGTVRT
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GTGALEGKAKLDGARSVTRTIQNNFFDSSKQEAIDVLLGNTLNSDLADKARALLTGS
LRVSEQTLQSASSKVLKSMCFYKYSKPKKIRVCVGTWNVNGGKQFRSIAFKNQTLTDW
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>sp|P30101|PDIA3_HUMAN Protein disulfide-isomerase A3 OS=Homo sapiens GN=PDIA3
PE=1 SV=4 Site of Methyllysine:61

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ADGIVSHLKKQAGPASVPLRTEEEFKKFI SDKDASIVGFFDSSFSEAHSEFLKAASNLRD
NYRFAHTNVEESLNEYDDNNEGII LFRPSHLTNKFEDKTVAYTEQKMTSGKIKKFIQENI
FGICPHMTEDNKDLIQGKDLIIAYYDVYKNAKGSNYWRNRVMMVAKKFLDAGHKLNFA
VASRKTFSHELSDFGLESTAGEIPVVAIRTAKGEKFMQEEFSRDGKALERFLQDYFDGN
LKRYLKSEPIPESNDGPVKVVVAENFDEIVNNENKDVLEFYAPWCGHCKNLEPKYKELG
EKLSKDPNIVIAKMDATANDVPSPYEVRGFPTIYFSPANKKLNPKKYEGGRELSDFISYL
QREATNPPVIQEEKPKKKKKAQEDL

Table S1. Comparison of the predictive result in different methylarginine predictors with a testing dataset.

Accession	Experimental methylarginine sites	Predicted sites in different methylarginine predictors				
		MeMo	MASA	BPB-PPMS	PMeS	iMethyl-PseAAC
O43823	188,190,194,233,277	188,190,194,233	188,190,233	188	188,194,277	188,190,233
Q9ULX6	171,179,185,208,217,247	171,179,185,208,,247	171,179,208	208	217,247	-
O75815	442	442	-	-	-	442
Q6XZF7	480,488	480	-	-	488	-
Q9Y4H2	412,429	412	412	-	412	412
Q15654	25,111,179,205,217,236,238	25,111,179,205,236,238	25,111,179,205,236,238	25,236,238	25,111,179,205,217,236,238	25,236,238
Q8TF74	37,356,430	37,356,430	37,430	-	256,430	-
Q99959	46,125	46,125	46,125	-	46	46
Q9UKV3	8,14,29	8,14,29	14,29	29	8,14	14
Q9BZZ5	500,504,507,510	500,504,507,510	500,504,507,510	507,510	500,504,507,510	504,507,510
Q9NQS1	28,37,50	37,50	37	37	37	50
O95817	121,261	121,261	-	-	121	-
O95429	40,51,53,108,185,201	51,53,201	53,201	53	40,51,53	51
Q8N163	16,180,184	184	184	-	180	-
Q8TAP9	57,59,68,126	59	-	-	126	-
Q92530	205,231	205	205	205	205,231	205
Q6Y7W6	107,118,120,149	107,118,120,149	107,118,149	118,	107,118,120,149	120
Q92686	38,68	38,68	38,68	68	38,68	68
P04792	5,12,56	-	12	-	12,56	-
Q6PJG2	227,447	447	447	-	-	-
P62633	27,30,79	27,30,79	27	27	27,30	27,30
Q6ZRQ5	366,374	-	-	-	-	-
Q9BRQ0	105,131	-	-	-	105	105
P18583	936,943,950,997,1015,1090,1112	936	-	-	-	-
Q14966	33,41,47,49,54	47,49	49	-	33,41,47,49,54	33,41
O43896	948,958,963,1041	958,1041	958,1041	958,1041	958	958,963,1041
P08727	7,24,32,43,51	43	43	43	24,32	24,43
P05787	18,23,32,40,47	47	32,47	47	47	23,47
Q7Z736	638,642	638,642	638	638	638	638
O60293	95,99	95,99	95,99	-	95,99	-
P13646	27,35	27	27	-	-	27
P08729	25,46,48	-	-	-	25,46	46,48
O00571	88,93,95,617,632	88,93,95,632	88,93,632	632	93,617,632	88,632

Q86XP3	12,814,875	12,814,875	12,814,875	12,875	12,875	12
Q8IVS2	79,86,340	79	340	-	79,86	-
Q8WUA2	435,437,443	443	-	-	-	-
P49247	21,42,46,52	21,52	52	52	21,46	21,46,52
Q9BYN0	11,16	11,16	16	16	11,16	11,16
Q9H2U1	47,50,52	47,50,52	47,50	47,50	47,50	47,50
Q9P258	26,28	-	28	28	26,28	26,28
Q9BST9	9,14	14	-	-	9,14	-
Q96FS4	13,47	13,47	13,47	-	-	13
P05423	95,97,99	95,97,99	95,97	97	95,97,99	95,97
Q9UPN9	577,598,604	577,604	-	-	577,598	-
Q96CU9	12	12	12	12	12	-
P52272	60,456	-	-	-	60,456	-
Q8WUM0	17,54,61	17,61	17,61	17	17,61	17
Q9H6A9	274,702	274	274	-	274,	274
Q96PU8	227,242	-	-	-	227	242
Q13454	63,67	67	-	-	67	-

Table S2. Comparison of the predictive result in different methyllysine predictors with a testing data set.

Accession	Experimental methyllysine sites	Predicted sites in different methyllysine predictors						
		MeMo	MASA	BPB-PPMS	PMes	PLMLA	MethK	iMethyl-PseAAC
D3ZAZ5	334	-	-	-	-	-	-	-
A7E2C5	174	-	-	-	-	174	-	-
Q70E73	134	-	-	-	-	134	134	-
Q6R327	1367	-	-	-	-	1367	-	1367
Q9UEE9	219	-	219	-	-	-	-	-
O00515	367	-	-	-	-	367	-	367
Q66K74	553	-	-	-	-	553	-	-
Q15942	295	-	-	-	-	-	-	295
Q9NQS1	230	-	-	-	-	230	230	230
P14625	663	-	-	-	-	-	-	-
Q8N163	123	-	-	-	-	123	-	123
Q96JP5	174	-	-	-	-	174	-	174
Q9NVM6	264	-	-	-	-	264	-	-
P08238	607	-	-	-	-	607	607	-
P34932	773	-	-	773	-	773	-	-
P11021	591	-	-	-	-	-	591	-
P11142	557	-	-	-	-	557	557	-
P50238	64	-	-	64	-	64	-	-
P08107	567	-	-	567	-	-	-	-
O60870	135	-	-	-	-	135	135	135

Q9P270	553	-	-	-	-	-	-	553
Q9Y657	7	-	-	-	-	-	-	7
Q01518	287	-	-	-	-	287	287	287
Q15417	158	-	-	-	-	158	-	-
Q14847	75	-	-	-	-	-	75	-
P27816	809,1011	-	-	-	-	809	-	-
P16949	29	-	-	-	-	29	-	-
Q9BX63	575	-	-	-	-	575	-	-
Q86XP3	708	-	-	-	-	708	-	708
Q9H9B1	153	-	-	-	-	153	153	153
Q96KQ7	189	-	-	-	-	-	-	189
Q9H9T3	229	-	-	-	-	229	-	-
Q92800	736	-	-	736	-	736	-	-
Q15910	510	-	-	-	-	510	510	-
O94761	114	-	-	-	-	-	114	-
Q15047	1170,1178	-	-	-	-	1170,1178	1170,1178	-
Q93075	56	-	-	-	-	56	-	-
P60174	231	-	-	-	231	231	231	-
Q9Y2L1	331	-	-	-	-	331	-	-
Q96N67	381	-	-	-	-	-	-	-
Q7Z699	224	224	-	-	-	-	-	-
A1X283	619	-	-	-	-	-	-	-
Q9NPJ3	111	-	-	-	-	-	-	-
P04075	330	-	-	-	-	-	-	-
P38117	202	-	-	-	-	-	202	-
Q9Y512	255	-	-	-	-	-	255	255
O43929	7	-	-	-	-	7	-	7
O95248	1222	-	-	-	-	1222	1222	1222
C9JFZ1	565	-	-	-	-	-	-	565
P30101	61	-	-	-	-	61	-	-