

Supplementary Table 2. List of the 200 most important genes used to classify cancer types.

Description	Number	Genes
Actin	2	ACTL9, ACTRT2
Adenosine Deaminase	1	ADAD1
Baculoviral IAP	1	BIRC8
Testis	1	C10orf122
Coiled-Coil Domain	1	C10orf96
Chromosome 1	2	C1orf185, C1orf68
Chromosome 3	1	C3orf77
Chromosome 4	2	C4orf40, C4orf45
Chromosome 7	1	C7orf72
Chromosome 11	1	C11orf40
Chromosome 14	1	C14orf177
Chromosome 17	1	C17orf105
Chromosome 20	1	C20orf79
Calcium Binding Protein	1	CABP2
Clarin	1	CLRN2
Chorionic Somatomammotropin Hormone	2	CSH1, CSHL1
Dermcidin	1	DCD
Defensin Beta	9	DEFB104A, DEFB112, DEFB115, DEFB119, DEFB121, DEFB125, DEFB128, DEFB135, DEFB136
Down Syndrome Critical Region	1	DSCR4
Dual Specificity Phosphatase And Pro	1	DUPD1

Isomerase Domain		
Even-Skipped Homeobox	1	EVX1
Fatty Acid Binding Protein	1	FABP12
Family With Sequence Similarity	1	FAM24A
Fibroblast Growth Factor	1	FGF4
Forkhead Box	1	FOXB1
Gap Junction Protein	1	GJA10
Glycerol Kinase	1	GK2
Glycoprotein Hormone	1	GPHB5
Glutaredoxin And Cysteine Rich Domain	1	GRXCR1
Goosecoid Homeobox	1	GSC2
Hes Family BHLH Transcription	1	HES3
Heparan Sulfate-Glucosamine	1	HS3ST3B1
Interferon	6	IFNA10, IFNA17, IFNA2, IFNA4, IFNA6, IFNA7
Interleukin	1	IL9
IQ Motif	1	IQCF2
Potassium Two Pore Domain	1	KCNK18
Kinocilin	1	KNCN
Keratin Associated Protein	25	KRTAP4.3, KRTAP6.1, KRTAP6.3, KRTAP9.2, KRTAP9.8, KRTAP9.9, KRTAP10.10, KRTAP10.11, KRTAP10.12, KRTAP10.8, KRTAP12.2, KRTAP12.3,

		KRTAP13.3, KRTAP15.1, KRTAP19.3, KRTAP19.4, KRTAP19.5, KRTAP19.6, KRTAP19.7, KRTAP20.1, KRTAP20.2, KRTAP20.3, KRTAP20.4, KRTAP21.1, KRTAP24.1
Lacritin	1	LACRT
Late Cornified Envelope	3	LCE3B, LCE3C, LCE4A
Galectin	1	LGALS13
Methyl-CpG Binding Domain	1	MBD3L2
MAS Related GPR Family	1	MRGPRX1
Myosin Light	1	MYL1
Natural Cytotoxicity Triggering Receptor	1	NCR2
NK2 Homeobox	1	NKX2.6
5'-Nucleotidase	1	NT5C1A
Obg Like ATPase	1	OLA1
Olfactory Receptor Family	83	OR1D2, OR1L4, OR2F2, OR2J2, OR2M2, OR2M5, OR2S2, OR2T12, OR4A16, OR4A5, OR4C11, OR4C12, OR4C13, OR4C15, OR4C16, OR4C3, OR4D11, OR4D2, OR4D6, OR4E2, OR4F15, OR4F21, OR4F5, OR4F6, OR4K1, OR4L1, OR4M1, OR4N5, OR4P4, OR4Q3, OR4S1, OR4S2, OR4X1, OR5A2, OR5L2, OR5M1_ENST00000526538, OR5T1, OR5T3, OR6C1, OR6C2, OR6C3, OR6C4, OR6C65, OR6C68, OR6C74, OR6C76, OR6K3, OR6M1, OR6N1, OR6N2, OR6P1, OR6Q1, OR6X1, OR6Y1, OR7A10, OR7A17, OR7C2, OR7G2, OR8B2, OR8B4,

		OR8D4, OR8H2, OR8I2, OR8J1, OR8J3, OR8K1, OR8K3, OR9G4, OR9Q2, OR10C1, OR10G7, OR10G9, OR10H4, OR10J1, OR10J3, OR10J5, OR10K1, OR10R2, OR10X1, OR11H6, OR12D3, OR14C36, OR14J1
Oocyte Secreted Protein	1	PLAC1L
Protein Phosphatase	1	PPP1R3A
PRAME	1	PRAMEF14
Protamine	2	PRM1, PRM3
Proline Rich	3	PRR21, PRR23B, PRR23C
Ribonuclease	1	RNASE12
Ribosomal Protein	1	RPL26
Receptor Transporter Protein	1	RTP3
Serum Amyloid A3 Pseudogene	1	SAA3P
Secretoglobin Family	1	SCGB2A2
Serpin Family	1	SERPINA13
Solute Carrier Family	1	SLC36A3
Serine Peptidase Inhibitor	1	SPINT3
Syncollin	1	SYCN
Trace Amine Associated Receptor	2	TAAR2, TAAR8
Taste 2 Receptor	1	TAS2R16
TBC1 Domain Family	1	TBC1D21
T-Complex	1	TCP10L2
Transmembrane Protein	1	TMEM225
Transition Protein	1	TNP1

Vomeronal Receptor	1	VN1R4
WAP Four-Disulfide Core Domain	1	WFDC11