



Cancer Gene List - IV

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Abstract: There are thousands of genes that are related to the cancer development. This asreticle gives 1400 genes that are supposed as cancer genes. This is cancer gene list part 4.
 [Herbert M. **Cancer Gene List - IV**. *Cancer Biology* 2020;10(2):59-77]. ISSN: 2150-1041 (print); ISSN: 2150-105X (online). <http://www.cancerbio.net>. 7. doi: [10.7537/marscbj100220.07](https://doi.org/10.7537/marscbj100220.07).

Key words: cancer; gene; DNA; life; medicine

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 Cell proliferation is regulated during the body growth and the cancer could happen if the regulation is out of control. Viruses can be used to introduce the reprogramming factors into adult cells. However, there is a risk that the virus used to introduce the stem cell factors sometimes possibly causes cancers. Controlling genes on and off is central to the biological process. The most serious medical conditions, such as cancer and birth defects, are due to abnormal cell division and differentiation. Cancer cell lines can be used to find potential anti-tumor drugs. To control the differentiation of stem cell precisely is important in the drug development (Ma, et al, 2014).

There are thousands of genes that are related to the cancer development. Here it gives 1400 genes that are supposed as cancer genes (Table 1) (Atlas of Genetics and Cytogenetics in Oncology and Haematology., 2015). HGNC is responsible for

approving unique symbols and names for human loci, including protein coding genes, ncRNA genes and pseudogenes, to allow unambiguous scientific communication. The HUGO Gene Nomenclature Committee is the only worldwide authority that assigns standardised nomenclature to human genes. The HGNC approves both a short-form abbreviation known as a gene symbol, and also a longer and more descriptive name. Each symbol is unique and the committee ensures that each gene is only given one approved gene symbol. This allows for clear and unambiguous reference to genes in scientific communications, and facilitates electronic data retrieval from databases and publications. In preference, symbols also maintain parallel construction for different members of a gene family and can also be used for orthologous genes in other vertebrate species (HGNC, 2015).

Table 1. Cancer gene list (4)

| Gene | Location | HGNC (Hugo) Name |
|---|----------|--------------------------------------|
| H11 (Alias) | 12q24.23 | HSPB8 |
| H12.3 (Alias) | 5q35.3 | GNB2L1 |
| H12 (Alias) | 3p21.31 | RHOA |
| H1 (Alias) | 1p36.11 | CLIC4 |
| H2AFX | 11q23.3 | H2AFX (H2A histone family, member X) |
| H2 (Alias) | 9p24.1 | RLN2 |
| H2a/x (Alias) | 11q23.3 | H2AFX |
| H2A/X (Alias) | 11q23.3 | H2AFX |
| H2A.X (Alias) | 11q23.3 | H2AFX |
| H2AX (Alias) | 11q23.3 | H2AFX |
| H2 (heparin-binding growth factor receptor) (Alias) | 8p11.23 | FGFR1 |
| H37 (Alias) | 3p21.31 | RBM5 |
| H3 (rhesus monkey) (Alias) | 10q26.13 | DMBT1 |
| H4 (Alias) | 10q21.2 | CCDC6 |
| H6 (Alias) | 2p24.1 | RHOB |
| H731 (Alias) | 10q25.2 | PDCD4 |

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|---|----------|---|
| H9 (Alias) | 1p13.2 | RHOC |
| HA1753 (Alias) | 10p15.1 | AKRIC3 |
| HACE1 | 6q16.3 | HACE1 (HECT domain and ankyrin repeat containing E3 ubiquitin protein ligase 1) |
| HAGE (for Helicase AntiGen) (Alias) | 6q13 | DDX43 |
| HAI-1 (Alias) | 15q15.1 | SPINT1 |
| HAI1 (Alias) | 15q15.1 | SPINT1 |
| HAI (Alias) | 15q15.1 | SPINT1 |
| HAIP1 (Alias) | 11q22.2 | BIRC3 |
| HAKRB (Alias) | 10p15.1 | AKRIC3 |
| HAKRe (Alias) | 10p15.1 | AKRIC3 |
| HAMPKb (Alias) | 12q24.23 | PRKAB1 |
| HAP46 (Alias) | 9p13.3 | BAG1 |
| HAP (Alias) | 9p13.3 | BAG1 |
| HARAKIRI (Alias) | 12q24.22 | HRK |
| HARP (Alias) | 7q33 | PTN |
| HAS2 | 8q24.13 | HAS2 (hyaluronan synthase 2) |
| HASH1 (Alias) | 12q23.2 | ASCL1 |
| HAUSP (Alias) | 16p13.2 | USP7 |
| HB16 (Alias) | 2q31.1 | ATF2 |
| HB-1 (Alias) | 7q21.3 | PEG10 |
| HB9 (Alias) | 7q36.3 | MNX1 |
| HBD1 (Alias) | 8p23.1 | DEFB1 |
| HBEBP36 (Alias) | 5q34 | WWC1 |
| HBEBP3 (Alias) | 5q34 | WWC1 |
| HBEX2 (Alias) | Xq22.1 | BEX1 |
| HBMF-0.8 (Alias) | 6q23.2 | CTGF |
| HBMF-1 (Alias) | 5q31.3 | FGF1 |
| HBMF1 (Alias) | 5q31.3 | FGF1 |
| HBMF-2 (Alias) | 4q27 | FGF2 |
| HBMF-8 (Alias) | 10q24.32 | FGF8 |
| HBMF8 (Alias) | 7q33 | PTN |
| HBM (Alias) | 11q13.2 | LRP5 |
| HBNF (Alias) | 7q33 | PTN |
| HBP1 | 7q22.3 | HBP1 (HMG-box transcription factor 1) |
| HBP23 (Heme-binding protein 23 kDa) (Alias) | 1p34.1 | PRDX1 |
| HBXAP (Alias) | 11q14.1 | RSF1 |
| HBZ17 (Alias) | 7q32.2 | NRF1 |
| HCA519 (Alias) | 20q11.21 | TPX2 |
| HCC-1 (Alias) | 12q13.2 | SARNP |
| HCELL (Alias) | 11p13 | CD44 |
| HCMOGT-1 (Alias) | 17p11.2 | SPECC1 |
| HCMOGT-1 (sperm antigen HCMOGT-1) (Alias) | 17p11.2 | SPECC1 |
| HCNP (Alias) | 12q24.23 | PEBP1 |
| HCNPPP (Alias) | 12q24.23 | PEBP1 |
| HCP (Alias) | | PTPN6 |
| HCPH (Alias) | | PTPN6 |
| Hcs24 (Alias) | 6q23.2 | CTGF |
| HCTP4 (Alias) | 20q11.21 | TPX2 |
| HD21 (Alias) | Xp11.22 | SSX2 |
| HD2 (Alias) | 6q21 | HDAC2 |
| HD3 (Alias) | 5q31.3 | HDAC3 |
| HDAC2 | 6q21 | HDAC2 (histone deacetylase 2) |

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| HDAC3 (Alias) | 5q31.3 | HDAC3 |
| HDAC3 | 5q31.3 | HDAC3 (Histone deacetylase 3) |
| HDGC (Alias) | 18q12.1 | DSG2 |
| Hdlg (Alias) | 3q29 | DLG1 |
| HDMX (Alias) | 12q15 | MDM2 |
| HDR (Alias) | 10p14 | GATA3 |
| HDRS (Alias) | 10p14 | GATA3 |
| HEB (Alias) | 15q21.3 | TCF12 |
| HEK11 (Alias) | 6q16.1 | EPHA7 |
| HEK4 (Alias) | 3p11.1 | EPHA3 |
| HEK (Alias) | 3p11.1 | EPHA3 |
| HEL168 (Alias) | 14q11.2 | ANG |
| Helios (Alias) | 2q34 | IKZF2 |
| HELLS | 10q23.33 | HELLS (Helicase, Lymphoid-Specific) |
| HEL-S-28 (Alias) | 11p15.4 | ILK |
| HEP (Alias) | 7q34 | EPHB6 |
| HEPTP (Alias) | 1q32.1 | PTPN7 |
| HEPTP (Alias) | 20p13 | PTPRA |
| HER-2 (Alias) | 17q12 | ERBB2 |
| HER2 (Alias) | 17q12 | ERBB2 |
| HER-2/neu (Alias) | 17q12 | ERBB2 |
| HER3 (Alias) | 12q13.2 | ERBB3 |
| HERV-7q (Alias) | - | ERVW-1 |
| HERV-W_7q21.2 provirus ancestral Env polyprotein precursor (Alias) | - | ERVW-1 |
| HERV-W (Alias) | - | ERVW-1 |
| HERVW (Alias) | - | ERVW-1 |
| HERV-W-ENV (Alias) | - | ERVW-1 |
| Hexabrachion (Alias) | 9q33.1 | TNC |
| HFE1 (Alias) | 6p22.2 | HFE |
| HFE | 6p22.2 | HFE (hemochromatosis) |
| HFH-11 (Alias) | 12p13.33 | FOXM1 |
| HFH11 (Alias) | 12p13.33 | FOXM1 |
| HFH1 (Alias) | 6p25.3 | FOXQ1 |
| HFKH4 (Alias) | 9q22.33 | FOXE1 |
| HFKL5 (Alias) | 9q22.33 | FOXE1 |
| HFSP (Alias) | 5q11.2 | GZMA |
| HG11 (Alias) | 11q12.1 | APLNR |
| HG4-1 (Alias) | 12q13.2 | PA2G4 |
| HGF (Alias) | 7p15.3 | IL6 |
| HGFB (Alias) | 7q21.11 | HGF |
| HGF | 7q21.11 | HGF (hepatocyte growth factor (hepapoietin A; scatter factor)) |
| HGFIN (Alias) | 7p15.3 | GPNMB |
| HGFL (Alias) | 3p21.31 | MST1 |
| HGK2 (Alias) | 6p21.33 | DDR1 |
| HGNC:13226 (Alias) | 21q22.11 | OLIG2 |
| HGNC:14460 (Alias) | 14q11.2 | NDRG2 |
| HGNC8617 (Alias) | 2q36.1 | PAX3 |
| HGR74-h (Alias) | Xq22.1 | BEX1 |
| H-GRF55 (Alias) | 15q25.1 | RASGRF1 |
| HH (Alias) | 6p22.2 | HFE |
| HHC1 (Alias) | 3q21.1 | CASR |
| HHC (Alias) | 3q21.1 | CASR |

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|---|----------|---|
| HHF7 (Alias) | 1p13.2 | SLC16A1 |
| HHG 2 (Alias) | 2p16.3 | LHCR |
| HHG (Alias) | Xp21.2 | NROB1 |
| HHM (Alias) | 12p11.22 | PTHLH |
| HHT1 (Alias) | 9q34.11 | ENG |
| HHT2 (Alias) | 12q13.13 | ACVRL1 |
| HHT (Alias) | 12q13.13 | ACVRL1 |
| HIAP1 (Alias) | 11q22.2 | BIRC3 |
| Hiap-2 (Alias) | 11q22.2 | BIRC2 |
| HIAP-2 (Alias) | 11q22.2 | BIRC2 |
| HIAP2 (Alias) | 11q22.2 | BIRC2 |
| HIC1 | 17p13.3 | HIC1 (Hypermethylated in Cancer 1) |
| | | |
| HIF-1b (Alias) | 1q21.3 | ARNT |
| HIF2A (Alias) | 2p21 | EPAS1 |
| HIFPH2 (Alias) | 1q42.2 | EGLN1 |
| HILI (Alias) | 8p21.3 | PIWIL2 |
| HIP116A (Alias) | 3q24 | HLTF |
| HIP116 (Alias) | 3q24 | HLTF |
| HIP1 | 7q11.23 | HIP1 (Huntingtin interactin protein 1) |
| | | |
| HIP8 (Alias) | Xq28 | MAGEA3 |
| HIPK2 | 7q34 | HIPK2 (homeodomain interacting protein kinase 2) |
| | | |
| Hippostasin (Alias) | 19q13.41 | KLK11 |
| HIRS-1 (Alias) | 2q36.3 | IRS1 |
| HIV-1 Tat interacting protein (Alias) | 11q13.1 | KAT5 |
| HIWI (Alias) | 12q24.33 | PIWIL1 |
| HJ1 (Alias) | 20p12.2 | JAG1 |
| HJ2 (Alias) | 14q32.33 | JAG2 |
| HJMD (Alias) | 16q22.1 | CDH3 |
| HKMT1069 (Alias) | 1p13.2 | WDR77 |
| HLADG (Alias) | 5q32 | CD74 |
| HLA-G | 6p22.1 | HLA-G (major histocompatibility complex, class I, G) |
| | | |
| HLA-H (Alias) | 6p22.2 | HFE |
| HLC-7 (Alias) | 5q35.3 | GNB2L1 |
| HLCDGP1 (Alias) | 5q32 | CSNK1A1 |
| HLF (Alias) | 2p21 | EPAS1 |
| HLF | 17q22 | HLF (hepatic leukemia factor) |
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| HLPR (Alias) | 20p13 | PTPRA |
| HLR1 (Alias) | 17q23.3 | DDX5 |
| HLTF1 (Alias) | 3q24 | HLTF |
| HLTF | 3q24 | HLTF (helicase-like transcription factor) |
| | | |
| HLXB9 (homeo box HB9) (Alias) | 7q36.3 | MNX1 |
| HM145 (Alias) | 3p21.31 | CCR1 |
| HMAT1 (Alias) | 1q23.2 | PEA15 |
| HMFN0395 (Alias) | 19q13.33 | ATF5 |
| HMGA1 | 6p21.31 | HMGA1 (High mobility group protein (non histone chromosomal) isoform I and Y) |
| | | |
| HMGA2 | 12q14.3 | HMGA2 (high mobility group AT-hook 2) |
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| HMGIC (High mobility group protein isoform I-C) (Alias) | 12q14.3 | HMGA2 |
| HMG-I (Y), HMGI/Y (Alias) | 6p21.31 | HMGA1 |

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| HMIWC2 (Alias) | 18q11.2 | AQP4 |
| HMN2A (Alias) | 12q24.23 | HSPB8 |
| HMN2 (Alias) | 12q24.23 | HSPB8 |
| HMN2B (Alias) | 7q11.23 | HSPB1 |
| HMR (Alias) | 12q13.13 | NR4A1 |
| HMSNL (Alias) | 8q24.22 | NDRG1 |
| HNF3A (Alias) | 14q21.1 | FOXA1 |
| HNF-3 (Alias) | 12p13.33 | FOXM1 |
| HNGS1 (Alias) | 11q21 | MRE11A |
| HNP (Alias) | 19q13.41 | KLK8 |
| HNPCC1 (Alias) | 2p21 | MSH2 |
| HNPCC2 (Alias) | 3p22.2 | MLH1 |
| HNPCC3 (Alias) | 2q32.2 | PMS1 |
| HNPCC5 (Alias) | 2p16.3 | MSH6 |
| HNRNPD | 4q21.22 | HNRNPD (heterogeneous nuclear ribonucleoprotein D (AU-rich element RNA binding protein 1, 37kDa)) |
| HNRNP-I (Alias) | 19p13.3 | PTBP1 |
| HNRNPI (Alias) | 19p13.3 | PTBP1 |
| HNRNPK | 9q21.32 | HNRNPK (heterogeneous nuclear ribonucleoprotein K) |
| HNRPD (Alias) | 4q21.22 | HNRNPD |
| HNRPI (Alias) | 19p13.3 | PTBP1 |
| HNRPK (Alias) | 9q21.32 | HNRNPK |
| HNT (Alias) | 6p24.3 | RREB1 |
| HOM-MEL-40 (Alias) | Xp11.22 | SSX2 |
| HOX11L2 (Alias) | 5q35.1 | TLX3 |
| HOX1G (homeobox-1G); (Alias) | 7p15.2 | HOXA9 |
| HOX1I (HOMEBOX 1I) (Alias) | 7p15.2 | HOXA11 |
| HOX3A (Alias) | 12q13.13 | HOXC8 |
| HOX3 (Alias) | 12q13.13 | HOXC13 |
| HOX3 (Alias) | 12q13.13 | HOXC8 |
| HOX3G (Alias) | 12q13.13 | HOXC13 |
| HOX8 (Alias) | 5q35.2 | MSX2 |
| HOXA11 | 7p15.2 | HOXA11 (homeobox A11) |
| HOXA9 | 7p15.2 | HOXA9 (homeobox A9) |
| HOXC13 | 12q13.13 | HOXC13 (homeobox C13) |
| HOXC8 | 12q13.13 | HOXC8 (homeobox C8) |
| HOXHB9 (Alias) | 7q36.3 | MNX1 |
| HP86 (Alias) | 21q22.13 | DYRK1A |
| HPAFP (Alias) | 4q13.3 | AFP |
| HP (Alias) | 8p22 | DLC1 |
| HPC2 (Alias) | 17p12 | ELAC2 |
| HPE9 (Alias) | 2q14.2 | GLI2 |
| HPH-2 (Alias) | 1q42.2 | EGLN1 |
| HPK38 (Alias) | 9p13.2 | MELK |
| HPPCn (Alias) | 15q23 | ANP32A |
| HPT-1 (Alias) | 8q22.1 | CDH17 |
| HPT1 (Alias) | 8q22.1 | CDH17 |
| HPTA (Alias) | 7q21.11 | HGF |
| HPT-JT (Alias) | 1q31.2 | CDC73 |
| HPTP1C (Alias) | | PTPN6 |
| HPTPA (Alias) | 20p13 | PTPRA |
| HPTP (Alias) | 9p24.1 | PTPRD |

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|---|----------|---|
| HPTPalpha (Alias) | 20p13 | PTPRA |
| HPTPD (Alias) | 9p24.1 | PTPRD |
| HPTP-DELTA (Alias) | 9p24.1 | PTPRD |
| HPTPeta (Alias) | 11p11.2 | PTPRJ |
| HPTPG (Alias) | 3p14.2 | PTPRG |
| HPTTG (Alias) | 5q33.3 | PTTG1 |
| HPVE6A (Alias) | 15q11.2 | UBE3A |
| HRAS | 11p15.5 | HRAS (Harvey rat sarcoma viral oncogene homolog) |
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| HRASLS4 (Alias) | 11q12.3 | RARRES3 |
| HRCAL (Alias) | 8q24.13 | RNF139 |
| HRF-20 (Alias) | 11p13 | CD59 |
| HRF20 (Alias) | 11p13 | CD59 |
| HRH-J8 (Alias) | 11q22.3 | DDX10 |
| HRK | 12q24.22 | HRK (harakiri, BCL2 interacting protein (contains only BH3 domain)) |
| | | |
| HRPT2 (Alias) | 1q31.2 | CDC73 |
| HRR-1 (Alias) | 12q23.1 | NR1H4 |
| HRR1 (Alias) | 12q23.1 | NR1H4 |
| Hs.1163 (Alias) | 1p34.1 | PRDX1 |
| HS1 (Alias) | 20q13.33 | EEF1A2 |
| HS44KDAP (Alias) | 16p11.2 | MAPK3 |
| Hs.54473 (Alias) | 5q35.1 | NKX2-5 |
| Hs.6364 (Alias) | 11q13.1 | KAT5 |
| Hs.75619 (Alias) | 3p21.31 | HYAL1 |
| HS.76067 (Alias) | 7q11.23 | HSPB1 |
| Hs.84359 (Alias) | 17p13.1 | CLDN7 |
| HSA269537 (Alias) | 12q23.3 | CHST11 |
| HSAP (Alias) | 2p16.3 | MSH6 |
| H. sapiens p130 mRNA for 130K protein (Alias) | 16q12.2 | RBL2 |
| HSAS1 (Alias) | Xq28 | LICAM |
| HSAS (Alias) | Xq28 | LICAM |
| HSC54 (Alias) | 11q24.1 | HSPA8 |
| HSC70 (Alias) | 11q24.1 | HSPA8 |
| HSC71 (Alias) | 11q24.1 | HSPA8 |
| HsCDC18 (Alias) | 17q21.2 | CDC6 |
| HsCDC6 (Alias) | 17q21.2 | CDC6 |
| HSCTE (Alias) | 19q13.41 | KLK5 |
| HSD17B5 (Alias) | 10p15.1 | AKR1C3 |
| HSF (Alias) | 7p15.3 | IL6 |
| HSIX1 (human SIX1) (Alias) | 14q23.1 | SIX1 |
| HSKM-B (Alias) | 1q32.3 | SMYD2 |
| HsMAD2 (Alias) | 4q27 | MAD2L1 |
| HSN (Alias) | 7p22.1 | FSCN1 |
| HSP105 (Alias) | 13q12.3 | HSPH1 |
| HSP105 α (Alias) | 13q12.3 | HSPH1 |
| HSP105 β (Alias) | 13q12.3 | HSPH1 |
| HSP110 (Alias) | 13q12.3 | HSPH1 |
| HSP22 (Alias) | 12q24.23 | HSPB8 |
| Hsp25 (Alias) | 7q11.23 | HSPB1 |
| HSP27 (Alias) | 7q11.23 | HSPB1 |
| HSP28 (Alias) | 7q11.23 | HSPB1 |
| HSP60 (Alias) | 2q33.1 | HSPD1 |
| HSP65 (Alias) | 2q33.1 | HSPD1 |
| HSP71 (Alias) | 11q24.1 | HSPA8 |
| HSP73 (Alias) | 11q24.1 | HSPA8 |

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|---|----------|---|
| HSP75 (Alias) | 16p13.3 | TRAP1 |
| HSP90L (Alias) | 16p13.3 | TRAP1 |
| HSPA10 (Alias) | 11q24.1 | HSPA8 |
| HSPA5 | 9q33.3 | HSPA5 (heat shock 70kDa protein 5 (glucose-regulated protein, 78kDa)) |
| HSPA8 | 11q24.1 | HSPA8 (heat shock 70kDa protein 8) |
| HSPB1 | 7q11.23 | HSPB1 (Heat-Shock 27 kDa Protein 1) |
| HspB5 (Alias) | 11q23.1 | CRYAB |
| HSPB5 (Alias) | 11q23.1 | CRYAB |
| HSPB8 | 12q24.23 | HSPB8 (heat shock 22kDa protein 8) |
| HSPBAP1 | 3q21.1 | HSPBAP1 (HSPB (heat shock 27kDa) associated protein 1) |
| HSPC022 (Alias) | 22q13.1 | RAC2 |
| HSPC057 (Alias) | 16q12.1 | CYLD |
| HSPC060 (Alias) | 18q22.2 | SOCS6 |
| HSPC108 (Alias) | 9p13.3 | STOML2 |
| HSPC113 (Alias) | 19q13.12 | EXYD5 |
| HSPC132 (Alias) | 12q24.31 | TRIAP1 |
| HSPC215 (Alias) | 3p13 | FOXPI |
| HSPD1 | 2q33.1 | HSPD1 (Heat Shock 60kDa Protein 1) |
| HSPG2 | 1p36.12 | HSPG2 (heparan sulfate proteoglycan 2) |
| HSPG (Alias) | 1p36.12 | HSPG2 |
| HSPH1 | 13q12.3 | HSPH1 (heat shock 105kDa/110kDa protein 1) |
| HsT1196 (Alias) | 18q21.33 | SERPINB3 |
| HsT18717 (Alias) | 15q21.3 | ADAM10 |
| HsT18964 (Alias) | 15q23 | ITGA11 |
| HsTRAD (Alias) | 17q12 | RAD51D |
| HSULF-1 (Alias) | 8q13.2 | SULF1 |
| HSULF-2 (Alias) | 20q13.12 | SULF2 |
| HSXIAPAF1 (Alias) | 17p13.1 | XAF1 |
| HSY11339 (Alias) | 17q25.1 | ST6GALNAC1 |
| HTATIP2 | 11p15.1 | HTATIP2 (HIV-1 Tat interactive protein 2, 30kDa) |
| HTATIP (HIV-1 Tat interacting protein, 60kDa) (Alias) | 11q13.1 | KAT5 |
| HTCD37 (Alias) | 1q21.3 | PRUNE |
| HTF4 (Alias) | 15q21.3 | TCF12 |
| HTO27 (Alias) | 17q25.1 | GRB2 |
| HTRA1 | 10q26.13 | HTRA1 (HtrA serine peptidase 1) |
| HTRA2 | 2p13.1 | HTRA2 (HtrA serine peptidase 2) |
| HTRA3 | 4p16.1 | HTRA3 (HtrA serine peptidase 3) |
| HtrA (Alias) | 10q26.13 | HTRA1 |
| H-twist (Alias) | 7p21.1 | TWIST1 |
| HU-1 (Alias) | 1p36.11 | RPS6KA1 |
| Hua (Alias) | 19p13.2 | ELAVL1 |
| HUCEP-13 (Alias) | 3p21.1 | BAP1 |
| HuCHA60 (Alias) | 2q33.1 | HSPD1 |
| HuGBP-1 (Alias) | 1p22.2 | GBP1 |

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|---|----------|--|
| HUMARA (Alias) | Xq12 | AR |
| HUMHOXY1 (Alias) | 1p36.21 | PRDM2 |
| HUMKER1A (Alias) | 16p11.2 | MAPK3 |
| HUMMAT1H (Alias) | 1q23.2 | PEA15 |
| HUMP68 (Alias) | 17q23.3 | DDX5 |
| HUNK1 (Alias) | 19p13.12 | BRD4 |
| HUP2 (Alias) | 2q36.1 | PAX3 |
| HuR (Alias) | 19p13.2 | ELAVL1 |
| HUR (Alias) | 19p13.2 | ELAVL1 |
| HUS1 | 7p12.3 | HUS1 (HUS1 checkpoint homolog (S. pombe)) |
| | | |
| HUTCH-I (Alias) | 11p13 | CD44 |
| HVH1 (Alias) | 5q35.1 | DUSP1 |
| HVSL1 (Alias) | 16q21 | USB1 |
| HYA1 (Alias) | 7q31.32 | SPAM1 |
| HYA22 (Alias) | 3p22.2 | CTDSPL |
| HYAL-1 (Alias) | 3p21.31 | HYAL1 |
| HYAL1 (Alias) | 7q31.32 | SPAM1 |
| HYAL1 | 3p21.31 | HYAL1 (hyaluronoglucosaminidase 1) |
| | | |
| HYAL2 | 3p21.31 | HYAL2 (Hyaluronoglucosaminidase 2) |
| | | |
| HYAL3 (Alias) | 7q31.32 | SPAM1 |
| HYAL5 (Alias) | 7q31.32 | SPAM1 |
| Hyal-PH20 (Alias) | 7q31.32 | SPAM1 |
| Hyaluronidase-1 precursor (Alias) | 3p21.31 | HYAL1 |
| Hyaluronoglucosaminidase-1 (Alias) | 3p21.31 | HYAL1 |
| HYPD (Alias) | Xq28 | MAGEA3 |
| HYPERION (Alias) | 7q21.2 | AKAP9 |
| HYPLIP1 (Alias) | 1q23.3 | USF1 |
| I1PP2A (Alias) | 15q23 | ANP32A |
| I2PP2A (Alias) | 9q34.11 | SET |
| IA4 (Alias) | 11p11.2 | CD82 |
| Ia-GAMMA (Alias) | 5q32 | CD74 |
| IAP2 (Alias) | 11q22.2 | BIRC2 |
| IASPP (Inhibitor of ASPP protein) (Alias) | 19q13.32 | PPP1R13L |
| IB1099 (Alias) | 10q23.33 | LGI1 |
| IBD2; (Alias) | 14q31.1 | SEL1L |
| IBMPFD (Alias) | 9p13.3 | VCP |
| IBP6 (Alias) | 12q13.13 | IGFBP6 |
| ICAM-1 (Alias) | 19p13.2 | ICAM1 |
| ICAM1 | 19p13.2 | ICAM1 (intercellular adhesion molecule 1 (CD54), human rhinovirus receptor) |
| | | |
| ICE (Alias) | 11q22.3 | CASP1 |
| ICE-LAP3 (Alias) | 10q25.3 | CASP7 |
| ICE-LAP6 (Alias) | 1p36.21 | CASP9 |
| ICF1 (Alias) | 20q11.21 | DNMT3B |
| ICF (Alias) | 20q11.21 | DNMT3B |
| ICIL-1RA (Alias) | 2q13 | IL1RN |
| ID1 | 20q11.21 | ID1 (inhibitor of DNA binding 1, dominant negative helix-loop-helix protein) |
| | | |
| ID2A (Alias) | 2p25.1 | ID2 |
| ID2H (Alias) | 2p25.1 | ID2 |
| ID2 | 2p25.1 | ID2 (Inhibitor Of DNA Binding 2, Dominant Negative Helix-Loop-Helix Protein) |
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| ID4 | 6p22.3 | ID4 (inhibitor of DNA binding 4, dominant negative helix-loop-helix protein) |
| ID (Alias) | 20q11.21 | ID1 |
| IDO1 | 8p11.21 | IDO1 (indoleamine 2,3-dioxygenase 1) |
| IDO2 | 8p11.21 | IDO2 (indoleamine 2,3-dioxygenase 2) |
| IDO (Alias) | 8p11.21 | IDO1 |
| IDX-1 (Alias) | 13q12.2 | PDX1 |
| IER3 | 6p21.33 | IER3 (immediate early response 3) |
| IEX-1 (Alias) | 6p21.33 | IER3 |
| IEX1 (Alias) | 6p21.33 | IER3 |
| IEX-1L (Alias) | 6p21.33 | IER3 |
| IFI10 (Alias) | 4q21.1 | CXCL10 |
| I-FLICE (Alias) | 2q33.1 | CFLAR |
| IFNB2 (Alias) | 7p15.3 | IL6 |
| IGAAD (Alias) | 9q34.11 | SET |
| IGDA (Alias) | 6p25.3 | FOXC1 |
| IGDCC1 (Alias) | 18q21.2 | DCC |
| IGEBF (Alias) | 19p13.2 | FCER2 |
| IGF1A (Alias) | 12q23.2 | IGF1 |
| IGF1 | 12q23.2 | IGF1 (Insulin-Like Growth Factor 1 (Somatomedin C)) |
| IGF1R | 15q26.3 | IGF1R (insulin-like growth factor 1 receptor) |
| IGF2BP1 | 17q21.32 | IGF2BP1 (insulin-like growth factor 2 mRNA binding protein 1) |
| IGF2R | 6q25.3 | IGF2R (insulin-like growth factor 2 receptor) |
| IGFBP10 (Alias) | 1p22.3 | CYR61 |
| IGFBP6 | 12q13.13 | IGFBP6 (insulin-like growth factor binding protein 6) |
| IGFBP8 (Alias) | 6q23.2 | CTGF |
| IGFBP-rP3 (Alias) | 6q23.2 | CTGF |
| IGF-I (Alias) | 12q23.2 | IGF1 |
| IGFI (Alias) | 12q23.2 | IGF1 |
| IGFIR (Alias) | 15q26.3 | IGF1R |
| IGFR2 (Alias) | 1q23.3 | FCGR2B |
| IGH | 14q32.33 | IGH (Immunoglobulin Heavy) |
| IGH@ (Immunoglobulin Heavy) (Alias) | 14q32.33 | IGH |
| IGK | 2p11.2 | IGK (Immunoglobulin Kappa) |
| IGK@ (Immunoglobulin Kappa) (Alias) | 2p11.2 | IGK |
| IGL | 22q11.22 | IGL (Immunoglobulin Lambda) |
| IGL@ (Immunoglobulin Lambda) (Alias) | 22q11.22 | IGL |
| IGSF4C (Alias) | 19q13.31 | CADM4 |
| IGSF8 | 1q23.2 | IGSF8 (immunoglobulin superfamily, member 8) |
| IHG1 (Alias) | 6p25.3 | FOXC1 |
| II (Alias) | 5q32 | CD74 |
| IK1 (Alias) | 7p12.2 | IKZF1 |
| IKLF (Alias) | 13q22.1 | KLF5 |
| IKZF1 | 7p12.2 | IKZF1 (Ikaros family zinc finger 1) |

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| IKZF2 | 2q34 | IKZF2 (IKAROS family zinc finger 2) |
| IL-17A (Alias) | 6p12.2 | IL17A |
| IL17A | 6p12.2 | IL17A (interleukin 17A) |
| IL-17 (Alias) | 6p12.2 | IL17A |
| IL17 (Alias) | 6p12.2 | IL17A |
| IL-17F (Alias) | 6p12.2 | IL17F |
| IL17F | 6p12.2 | IL17F (interleukin 17F) |
| IL-1 (Alias) | 2q13 | IL1B |
| IL-1B (Alias) | 2q13 | IL1B |
| IL1BC (Alias) | 11q22.3 | CASP1 |
| IL1-BETA (Alias) | 2q13 | IL1B |
| IL1B | 2q13 | IL1B (interleukin 1, beta) |
| IL1F2 (Alias) | 2q13 | IL1B |
| IL1F3 (Alias) | 2q13 | IL1RN |
| IL-1ra3 (Alias) | 2q13 | IL1RN |
| IL-1ra (Alias) | 2q13 | IL1RN |
| IL1RA (Alias) | 2q13 | IL1RN |
| IL-1RN (Alias) | 2q13 | IL1RN |
| IL1RN | 2q13 | IL1RN (interleukin 1 receptor antagonist) |
| IL-21 (Alias) | 12q15 | IL22 |
| IL21 (Alias) | 12q15 | IL22 |
| IL-21R (Alias) | 16p12.1 | IL21R |
| IL21R | 16p12.1 | IL21R (interleukin 21 receptor) |
| IL-22 (Alias) | 12q15 | IL22 |
| IL22 | 12q15 | IL22 (interleukin 22) |
| IL22R1 (Alias) | 1p36.11 | IL22RA1 |
| IL22RA1 | 1p36.11 | IL22RA1 (interleukin 22 receptor, alpha 1) |
| IL22R (Alias) | 1p36.11 | IL22RA1 |
| IL-23A (Alias) | 12q13.3 | IL23A |
| IL23A | 12q13.3 | IL23A (interleukin 23, alpha subunit p19) |
| IL-23 (Alias) | 12q13.3 | IL23A |
| IL23P19 (Alias) | 12q13.3 | IL23A |
| IL3 | 5q31.1 | IL3 (interleukin-3) |
| IL3RA | Xp22.33 | IL3RA (Interleukin-3 Receptor alpha) |
| IL-6 (Alias) | 7p15.3 | IL6 |
| IL6 | 7p15.3 | IL6 (interleukin 6 (interferon beta 2)) |
| IL7RA (Alias) | 5p13.2 | IL7R |
| IL-7R-alpha (Alias) | 5p13.2 | IL7R |
| IL7R | 5p13.2 | IL7R (interleukin 7 receptor) |
| IL8R1 (Alias) | 2q35 | CXCR1 |
| IL8RA (Alias) | 2q35 | CXCR1 |
| IL8RBA (Alias) | 2q35 | CXCR1 |
| IL-D110 (Alias) | 12q15 | IL22 |
| ILK-1 (Alias) | 11p15.4 | ILK |

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| ILK-2 (Alias) | 11p15.4 | ILK |
| ILK | 11p15.4 | ILK (integrin-linked kinase) |
| ILRA (Alias) | 5p13.2 | IL7R |
| IL-TIF (Alias) | 12q15 | IL22 |
| ILTIF (Alias) | 12q15 | IL22 |
| IMB1 (Alias) | 17q21.32 | KPNB1 |
| IMD1 (Alias) | Xq22.1 | BTK |
| IMD2 (Alias) | Xp11.23 | WAS |
| IMP-1 (Alias) | 17q21.32 | IGF2BP1 |
| IMP1 (Alias) | 17q21.32 | IGF2BP1 |
| IMPCHASE (Alias) | 2q35 | ATIC |
| Impnb (Alias) | 17q21.32 | KPNB1 |
| IN (Alias) | 11p13 | CD44 |
| INDO2 (Alias) | 8p11.21 | IDO2 |
| INDO (Alias) | 8p11.21 | IDO1 |
| INDOL1 (Alias) | 8p11.21 | IDO2 |
| ING1L (Alias) | 4q35.1 | ING2 |
| ING1-like (Alias) | Xq13.1 | INGX |
| ING1Lp (Alias) | 4q35.1 | ING2 |
| ING2 (Alias) | Xq13.1 | INGX |
| ING2 | 4q35.1 | ING2 (inhibitor of growth family, member 2) |
| ING4 | 12p13.31 | ING4 (inhibitor of growth family, member 4) |
| INGX | Xq13.1 | INGX (inhibitor of growth family, X-linked, pseudogene) |
| INII (integrase interactor 1) (Alias) | 22q11.23 | SMARCB1 |
| INK4 (Alias) | 9p21.3 | CDKN2A |
| INK4B (Alias) | 9p21.3 | CDKN2B |
| INO80H (Alias) | 3q21.3 | RUVBL1 |
| INO80J (Alias) | 19q13.33 | RUVBL2 |
| INP10 (Alias) | 4q21.1 | CXCL10 |
| INPPL-1 (Alias) | 11q13.4 | INPPL1 |
| INPPL1 | 11q13.4 | INPPL1 (inositol polyphosphate phosphatase-like 1) |
| INS-1 (Alias) | 12p13.33 | FOXM1 |
| INT1 (Alias) | 12q13.12 | WNT1 |
| INT6 (Alias) | 13q14.3 | INTS6 |
| INTS6 | 13q14.3 | INTS6 (integrator complex subunit 6) |
| IP-10 (Alias) | 4q21.1 | CXCL10 |
| IP10 (Alias) | Xq13.1 | CXCR3 |
| IP10-R (Alias) | Xq13.1 | CXCR3 |
| Ipaf (Alias) | 2p22.3 | NLRC4 |
| IPCA-1 (Alias) | 7q21.13 | STEAP2 |
| IPCA1 (Alias) | 7q21.13 | STEAP2 |
| IPEX (Alias) | Xp11.23 | FOXP3 |
| IPF1 (Alias) | 13q12.2 | PDX1 |
| IPFK2 (Alias) | 10p15.1 | PFKFB3 |
| IPL1 (Alias) | 17p13.1 | AURKB |
| IPO1 (Alias) | 17q21.32 | KPNB1 |
| IPOB (Alias) | 17q21.32 | KPNB1 |
| IPP2A2 (Alias) | 9q34.11 | SET |
| IRAP (Alias) | 2q13 | ILIRN |
| IRBP (Alias) | 7p12.1 | GRB10 |
| I-Rel (Alias) | 19q13.32 | RELB |
| IRF-1 (Alias) | 5q31.1 | IRF1 |

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| IRF1 | 5q31.1 | IRF1 (interferon regulatory factor 1) |
| IRF-4 (Alias) | 6p25.3 | IRF4 |
| IRF4 | 6p25.3 | IRF4 (interferon regulatory factor 4) |
| IRID1 (Alias) | 6p25.3 | FOXC1 |
| IRIS (Alias) | 17q21.31 | BRCA1 |
| IRS1 | 2q36.3 | IRS1 (insulin receptor substrate 1) |
| ITAF45 (Alias) | 12q13.2 | PA2G4 |
| ITF1 Immunoglobulin Enhancer Binding (Alias) | 19p13.3 | TCF3 |
| ITF (Intestinal Trefoil Factor) (Alias) | 21q22.3 | TFF3 |
| ITGA11 | 15q23 | ITGA11 (integrin, alpha 11) |
| ITGA4L (Alias) | 3p22.2 | ITGA9 |
| ITGA6B (Alias) | 2q31.1 | ITGA6 |
| ITGA6 | 2q31.1 | ITGA6 (integrin, alpha 6) |
| ITGA9 | 3p22.2 | ITGA9 (integrin, alpha 9) |
| ITK | 5q33.3 | ITK (IL2-inducible T-cell kinase) |
| IUF1 (Alias) | 13q12.2 | PDX1 |
| IWU-1 (Alias) | 19q13.12 | FXYD5 |
| IWU1 (Alias) | 19q13.12 | FXYD5 |

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| J03278 (Alias) | 5q32 | PDGFRB |
| J1 (Alias) | 9q33.1 | TNC |
| JAB (JAK binding protein) (Alias) | 16p13.13 | SOCS1 |
| JAG1 | 20p12.2 | JAG1 jagged 1 (Alagille syndrome) |
| JAG2 | 14q32.33 | JAG2 (Human Jagged2) |
| JAGGED1 (Alias) | 20p12.2 | JAG1 |
| Jagged2 (Alias) | 14q32.33 | JAG2 |
| JAGL1 (Alias) | 20p12.2 | JAG1 |
| JAK1A (Alias) | 1p31.3 | JAK1 |
| JAK-1 (Alias) | 1p31.3 | JAK1 |
| JAK1B (Alias) | 1p31.3 | JAK1 |
| JAK1 | 1p31.3 | JAK1 (Janus kinase 1) |
| JAK2 | 9p24.1 | JAK2 (janus kinase 2) |
| JAK-3 (Alias) | 19p13.11 | JAK3 |
| JAK3 | 19p13.11 | JAK3 (Janus Kinase 3 or Just Another Kinase 3) |
| JAK HUMAN (Alias) | 19p13.11 | JAK3 |
| JARID1A (Alias) | 12p13.33 | KDM5A |
| JAZF1 | 7p15.2 | JAZF1 (JAZF zinc finger 1) |
| JFY1 (Alias) | 19q13.32 | BBC3 |
| JIP (Alias) | 18q21.2 | SMAD4 |
| JJAZ1 (joined to JAZF1) (Alias) | 17q11.2 | SUZ12 |
| JM2 (Alias) | Xp11.23 | FOXP3 |
| JMJD2C (Alias) | 9p24.1 | KDM4C |
| JNK1 (C-Jun N-terminal kinase 1) (Alias) | 10q11.22 | MAPK8 |
| JNK2 (C-Jun N-terminal kinase 2) (Alias) | 5q35.3 | MAPK9 |

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| JNK3 (C-Jun N-terminal kinase 3) (Alias) | 4q21.3 | MAPK10 |
| JNKK1 (Alias) | 17p12 | MAP2K4 |
| JNKK (Alias) | 17p12 | MAP2K4 |
| JTK11 (Alias) | 19q13.2 | AXL |
| JTK12 (Alias) | 5q32 | PDGFRB |
| JTK13 (Alias) | 15q26.3 | IGF1R |
| JTK14 (Alias) | 1p34.2 | TIE1 |
| JTK2 (Alias) | 5q35.2 | FGFR4 |
| JTK3 (Alias) | 1p31.3 | JAK1 |
| JUN-B (Alias) | 19p13.2 | JUNB |
| JUNB | 19p13.2 | JUNB (jun B proto-oncogene) |
| | | |
| JUND | 19p13.11 | JUND (jun D proto-oncogene) |
| | | |
| JUN-D proto-oncogene (Alias) | 19p13.11 | JUND |
| JUN | 1p32.1 | JUN (V-Jun sarcoma virus 17 oncogene homolog (avian)) |
| JUN protooncogene homolog B (Alias) | 19p13.2 | JUNB |
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| JV18-1 (Alias) | 18q21.1 | SMAD2 |
| JV18 (Alias) | 18q21.1 | SMAD2 |

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| KAI1 (Alias) | 11p11.2 | CD82 |
| KAIA302 (Alias) | 9q22.31 | WNK2 |
| KAL2 (Kallmann) (Alias) | 8p11.23 | FGFR1 |
| KAL6 (Alias) | 10q24.32 | FGF8 |
| KARP-1 (Alias) | 2q35 | XRCC5 |
| KARP1 (Alias) | 2q35 | XRCC5 |
| KAT3A (Alias) | 16p13.3 | CREBBP |
| KAT5 | 11q13.1 | KAT5 (HIV-1 Tat interacting protein, 60kDa) |
| | | |
| KAT6A | 8p11.21 | KAT6A (MYST histone acetyltransferase (monocytic leukemia) 3) |
| | | |
| KAT6B | 10q22.2 | KAT6B (MYST histone acetyltransferase (monocytic leukemia) 4) |
| | | |
| KChAP (Alias) | 1q21.1 | PIAS3 |
| KCMF1 | 2p11.2 | KCMF1 (potassium channel modulatory factor 1) |
| | | |
| KCNH1 | 1q32.2 | KCNH1 (potassium voltage-gated channel, subfamily H (eag-related), member 1) |
| | | |
| KCP1 (Alias) | 6q23.3 | PERP |
| KCT1 (Alias) | 19q13.12 | FXYS5 |
| KCT-4 (Alias) | 1q23.2 | IGSF8 |
| KD (Alias) | Xq12 | AR |
| KDM4C | 9p24.1 | KDM4C (Gene amplified in squamous cell carcinoma 1) |
| | | |
| KDM5A | 12p13.33 | KDM5A (Jumonji, AT rich interactive domain 1A (RBBP2-like)) |
| | | |
| Kerato-epithelin (Alias) | 5q31.1 | TGFB1 |
| KET (Alias) | 3q28 | TP63 |
| KFABP (Alias) | 8q21.13 | FABP5 |
| KGFR (Alias) | 10q26.13 | FGFR2 |
| KIAA0021 (Alias) | 8p11.22 | ADAM9 |
| KIAA0042 (Alias) | 1q32.1 | KIF14 |
| KIAA0075 (Alias) | 6p22.3 | E2F3 |
| KIAA0092 (Alias) | 11q21 | CEP57 |

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| KIAA0101 | 15q22.31 | KIAA0101 (KIAA0101) |
| | | |
| KIAA0119 (Alias) | 10p15.1 | AKRIC3 |
| KIAA0124 (Alias) | 8q24.3 | BOPI |
| KIAA0128 (Alias) | Xq24 | SEPT6 |
| KIAA0139 (Alias) | 10q26.11 | EIF3A |
| KIAA0158 (Alias) | 2q37.3 | SEPT2 |
| KIAA0160, (Alias) | 17q11.2 | SUZ12 |
| KIAA0164 (Alias) | 6q23.3 | BCLAF1 |
| KIAA0167 (Alias) | 12q14.1 | AGAP2 |
| KIAA0168 (Alias) | 20p13 | RASSF2 |
| KIAA0175 (Alias) | 9p13.2 | MELK |
| KIAA0198 (Alias) | 20q11.21 | PLAGL2 |
| KIAA0201 (Alias) | 13q12.3 | HSPH1 |
| KIAA0234 (Alias) | 9q34.13 | TSC1 |
| KIAA0272 (Alias) | 3p21.1 | BAP1 |
| KIAA0287 (Alias) | 19q13.43 | PEG3 |
| KIAA0382 (Alias) | 11q23.3 | ARHGEF12 |
| KIAA0383 (Alias) | 10q22.2 | KAT6B |
| KIAA0384 (Alias) | 11q12.1 | CTNND1 |
| KIAA0394 (Alias) | 17p13.1 | GAS7 |
| KIAA0407 (Alias) | 3p21.31 | PLXNB1 |
| KIAA0413 (Alias) | 12q23.1 | APAF1 |
| KIAA0444 (Alias) | 1p36.31 | CHD5 |
| KIAA0454 (Alias) | 1q21.1 | PDE4DIP |
| KIAA0474 (Alias) | 1p36.12 | RAP1GAP |
| KIAA0477 (Alias) | 1q21.1 | PDE4DIP |
| KIAA0529 (Alias) | 12q14.1 | USP15 |
| KIAA0554 (Alias) | 9q34.11 | FNBP1 |
| KIAA0571 (Alias) | 11q14.1 | GAB2 |
| KIAA0606 (Alias) | 18q21.33 | PHLPP1 |
| KIAA0616 (Alias) | 19p13.11 | CRTC1 |
| KIAA0621 (Alias) | 5q31.3 | ARHGAP26 |
| KIAA0651 (Alias) | 1q22 | ARHGEF2 |
| KIAA0693 (Alias) | 20q13.33 | SS18L1 |
| KIAA0717 (Alias) | 8p21.3 | RHOTB2 |
| KIAA0740 (Alias) | 10q21.2 | RHOTB1 |
| KIAA0777 (Alias) | 4q35.1 | SORBS2 |
| KIAA0780 (Alias) | 9p24.1 | KDM4C |
| KIAA0786 (Alias) | 1p31.1 | LPHN2 |
| KIAA0803 (Alias) | 7q21.2 | AKAP9 |
| KIAA0826 (Alias) | 4p11 | FRYL |
| KIAA0832 (Alias) | 1q41 | ESRRG |
| KIAA0833 (Alias) | 1p36.31 | CAMTA1 |
| KIAA0849 (Alias) | 16q12.1 | CYLD |
| KIAA0898 (Alias) | 17q22 | TRIM37 |
| KIAA0931 (Alias) | 16q22.2 | PHLPP2 |
| KIAA0955 (Alias) | 19q13.33 | CARD8 |
| KIAA0978 (Alias) | 20q11.21 | ASXL1 |
| KIAA0987 (Alias) | 18p11.31 | EPB41L3 |
| KIAA0991 (Alias) | 17q25.2 | SEPT9 |
| KIAA1051 (Alias) | 7q21.3 | PEG10 |
| KIAA1071 (Alias) | Xq23 | AMOT |
| KIAA1103 (Alias) | 8p11.22 | TACC1 |
| KIAA1199 | 15q25.1 | KIAA1199 (KIAA1199) |
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| KIAA1248 (Alias) | 14q11.2 | NDRG2 |
| KIAA1249 (Alias) | 8q24.21 | ASAP1 |

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| KIAA1266 (Alias) | 2p21 | MTA3 |
| KIAA1288 (Alias) | 8p22 | MTUS1 |
| KIAA1346 (Alias) | 21q21.3 | ADAMTS1 |
| KIAA1385 (Alias) | 14q23.3 | GPHN |
| KIAA1391 (Alias) | 11q23.1 | ARHGAP20 |
| KIAA1524 | 3q13.13 | KIAA1524 |
| | | |
| KIAA1546 (Alias) | 4q24 | TET2 |
| KIAA1565 (Alias) | 14q22.1 | NIN |
| KIAA1570 (Alias) | 15q15.1 | CASC5 |
| KIAA1610 (Alias) | 1p31.3 | MIER1 |
| KIAA1743 (Alias) | 9q33.2 | DAB2IP |
| KIAA1760 (Alias) | 9q22.31 | WNK2 |
| KIAA1819 (Alias) | 11q21 | MAML2 |
| KIAA1860 (Alias) | 19q13.32 | MARK4 |
| KIAA1914 (Alias) | 10q25.3 | AFAP1L2 |
| KIAA1961 (Alias) | 5q31.1 | FNIP1 |
| KIAA1967 | 8p21.3 | KIAA1967 (KIAA1967) |
| | | |
| KIAA4294 (Alias) | 13q14.3 | OLFM4 |
| KIA (Alias) | 10q26.2 | MKI67 |
| KIAA0034 (Alias) | 17q23.1 | CLTC |
| KIBRA (Alias) | 5q34 | WWC1 |
| Kidney-brush-border neutral proteinase (Alias) | 3q25.2 | MME |
| KIF14 | 1q32.1 | KIF14 (kinesin family member 14) |
| | | |
| KILLIN (Alias) | 10q23.31 | KLLN |
| KIP1 (Alias) | 12p13.1 | CDKN1B |
| KIT | 4q12 | KIT (v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog) |
| KITLG | 12q21.32 | KITLG (KIT ligand) |
| | | |
| KIT | 4q12 | KIT (v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog) |
| KLF4 | 9q31.2 | KLF4 (Kruppel-like factor 4 (gut)) |
| | | |
| KLF5 | 13q22.1 | KLF5: Kruppel-like factor 5 (intestinal) |
| | | |
| KLF6 | 10p15.1 | KLF6 (Kruppel like factor 6) |
| | | |
| KLK10 | 19q13.41 | KLK10 (Kallikrein-related peptidase 10) |
| | | |
| KLK11 | 19q13.41 | KLK11 (Kallikrein-related peptidase 11) |
| | | |
| KLK4 | 19q13.41 | KLK4 (kallikrein-related peptidase 4) |
| | | |
| KLK5 | 19q13.41 | KLK5 (Kallikrein-related peptidase 5) |
| | | |
| KLK7 | 19q13.41 | KLK7 (kallikrein-related peptidase 7) |
| | | |
| KLK8 | 19q13.41 | KLK8 (kallikrein-related peptidase 8) |
| | | |
| KLK-L1 (Alias) | 19q13.41 | KLK4 |
| KLK-L2 (Alias) | 19q13.41 | KLK5 |
| KLKL2 (Alias) | 19q13.41 | KLK5 |
| KLLN | 10q23.31 | KLLN (killin, p53-regulated DNA replication inhibitor) |
| | | |
| KLR (Alias) | 12p13.2 | KLRK1 |

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| KLRG1 (Alias) | 8q24.3 | MAFA |
| KLRK1 | 12p13.2 | KLRK1 (killer cell lectin-like receptor subfamily K, member 1) |
| KMT1C (Alias) | 6p21.33 | EHMT2 |
| KMT2A | 11q23.3 | KMT2A (myeloid/lymphoid or mixed lineage leukemia) |
| KMT3C (Alias) | 1q32.3 | SMYD2 |
| KMT3E (Alias) | 1q44 | SMYD3 |
| KMT6A (Alias) | 7q36.1 | EZH2 |
| KMT6 (Alias) | 7q36.1 | EZH2 |
| KMT8 (Alias) | 1p36.21 | PRDM2 |
| KNL1 (Alias) | 15q15.1 | CASC5 |
| KPM (Alias) | 13q12.11 | LATS2 |
| KPNB1 | 17q21.32 | KPNB1 (karyopherin (importin) beta 1) |
| KRAS | 12p12.1 | KRAS (Kirsten rat sarcoma 2 viral oncogene homolog) |
| K-RAS (Kirsten rat sarcoma 2 viral oncogene homolog) (Alias) | 12p12.1 | KRAS |
| KRML (Alias) | 20q12 | MAFB |
| KROX-24 (Alias) | 5q31.2 | EGR1 |
| KRP (Alias) | 3q21.1 | MYLK |
| KRS2 (Alias) | 20q13.12 | STK4 |
| KRTCAP1 (Alias) | 6q23.3 | PERP |
| KSA (Alias) | 2p21 | EPCAM |
| K-sam (Alias) | 10q26.13 | FGFR2 |
| KSR1 | 17q11.1 | KSR1 (kinase suppressor of ras 1) |
| KSR (Alias) | 17q11.1 | KSR1 |
| KU70 (Alias) | 22q13.2 | XRCC6 |
| KU80 (Alias) | 2q35 | XRCC5 |
| Ku86 (Alias) | 2q35 | XRCC5 |
| KUB1 (Alias) | 8p21.1 | CLU |
| KUB2 (Alias) | 2q35 | XRCC5 |
| Kv10.1 (Alias) | 1q32.2 | KCNH1 |

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| L1Ag (Alias) | 1q21.3 | S100A8 |
| L1AG (Alias) | 1q21.3 | S100A9 |
| LICAM | Xq28 | LICAM (L1 cell adhesion molecule) |
| L31 (Alias) | 14q22.3 | LGALS3 |
| L56 (Alias) | 10q26.13 | HTRA1 |
| LAF4 (lymphoid nuclear protein related to AF4) (Alias) | 2q11.2 | AFF3 |
| Lag (Alias) | 1p36.11 | STMN1 |
| LANP (Alias) | 15q23 | ANP32A |
| LAP18 (Alias) | 1p36.11 | STMN1 |
| LAP1 (Alias) | 11q24.1 | HSPA8 |
| LAP1 (Alias) | 14q32.32 | TRAF3 |
| LAP (Alias) | 19q13.2 | TGFB1 |
| LARG (Leukemia Associated Rho Guanine nucleotide exchange factor) (Alias) | 11q23.3 | ARHGEF12 |
| LASP1 | 17q12 | LASP1 (LIM and SH3 protein) |
| LATS1 | 6q25.1 | LATS1 (LATS, large tumor suppressor, homolog 1 (Drosophila)) |
| LATS2 | 13q12.11 | LATS2 (LATS, large tumor suppressor, homolog 2 (Drosophila)) |

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| LAZ3 (Alias) | 3q27.3 | BCL6 |
| LCAM (Alias) | 16q22.1 | CDH1 |
| LCCS2 (Alias) | 12q13.2 | ERBB3 |
| LCD1 (Alias) | 5q31.1 | TGFB1 |
| LCGR (Alias) | 2p16.3 | LHCGR |
| LCK | 1p35.1 | LCK (lymphocyte-specific protein tyrosine kinase) |
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| LCP1 | 13q14.13 | LCP1 (lymphocyte cytosolic protein1) |
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| LC-PTP (Alias) | 1q32.1 | PTPN7 |
| LDB1 | 10q24.32 | LDB1 (LIM domain binding 1) |
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| LDS1B (Alias) | 3p24.1 | TGFB2 |
| LDS2B (Alias) | 3p24.1 | TGFB2 |
| LeB (Alias) | 11p15.5 | MUC5AC |
| LEC1 (Alias) | 1p31.1 | LPHN2 |
| LECAM2 (Alias) | 1q24.2 | SELE |
| LEDGF (lens epithelium-derived growth factor) (Alias) | 9p22.3 | PSIP1 |
| LENG7 (Alias) | 6q13 | EEF1A1 |
| LERGU2 (Alias) | 7p22.3 | GPER1 |
| LERGU (Alias) | 7p22.3 | GPER1 |
| LFP40 (Alias) | 1q22 | ARHGEF2 |
| LGALS2 (Alias) | 14q22.3 | LGALS3 |
| LGALS3 | 14q22.3 | LGALS3 (lectin, galactoside-binding, soluble, 3) |
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| LGII | 10q23.33 | LGII (Leucine-rich, Glioma Inactivated protein 1 precursor) |
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| LGR2 (Alias) | 2p16.3 | LHCGR |
| LGR3 (Alias) | 14q31.1 | TSHR |
| LH/CGR (Alias) | 2p16.3 | LHCGR |
| LHCGR | 2p16.3 | LHCGR (luteinizing hormone/choriogonadotropin receptor) |
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| LHFP | 13q13.3 | LHFP (lipoma HMGIC fusion partner) |
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| LHR (Alias) | 11p13 | CD44 |
| LHR (Alias) | 2p16.3 | LHCGR |
| LHRHR (Alias) | 2p16.3 | LHCGR |
| LIAG (Alias) | 1q21.3 | S100A9 |
| LIBC (Alias) | 6q21 | WISP3 |
| LICE2 (Alias) | 10q25.3 | CASP7 |
| LIF-R (Alias) | 5p13.1 | LIFR |
| LIFR | 5p13.1 | LIFR (leukemia inhibitory factor receptor alpha) |
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| LIG-1 (Alias) | 3p14.1 | LRIG1 |
| LIG1 (Alias) | 3p14.1 | LRIG1 |
| LIG3 (Alias) | 12q14.1 | LRIG3 |
| LIMD1 | 3p21.31 | LIMD1 (LIM domains containing 1) |
| | | |
| LIMK-1 (Alias) | 7q11.23 | LIMK1 |
| LIMK1 | 7q11.23 | LIMK1 (LIM domain kinase 1) |
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| LIMK (Alias) | 7q11.23 | LIMK1 |
| LIN00598 | 13Q14 | LIN00598 long intergenic non-protein coding RNA 598 |
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| Lin28.2 (Alias) | 6q16.3 | LIN28B |

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| LIN28B | 6q16.3 | LIN28B (lin-28 homolog B (C. elegans)) |
| LIR-D1 (Alias) | 1q23.2 | IGSF8 |
| LIV-1 (Alias) | 18q12.2 | SLC39A6 |
| L-JAK (Alias) | 19p13.11 | JAK3 |
| LJAK (Alias) | 19p13.11 | JAK3 |
| LKB1 (Alias) | 19p13.3 | STK11 |
| LKP (Alias) | 1q25.3 | DHX9 |
| L-Maf (Alias) | 8q24.3 | MAFA |
| LMO1 | 11p15.4 | LMO1 (LIM domain only 1 (rhombotin 1)) |
| LMO2 | 11p13 | LMO2 (LIM domain only 2 (rhombotin-like 1)) |
| LMO2 (LIM domain only 2) (Alias) | 11p13 | LMO2 |
| LMS (Alias) | 3q28 | TP63 |
| LNIR (Alias) | 1q23.3 | PVRL4 |
| LOC11065 (Alias) | 20q13.12 | UBE2C |
| LOC114 (Alias) | 21q22.2 | ETS2 |
| LOC6424 (Alias) | 7p14.1 | SFRP4 |
| LOC646982 (Alias) | 13Q14 | LIN00598 |
| LOC79870 (Alias) | 8q22.3 | BAALC |
| LOG12 (Alias) | 17p13.1 | ALOX12 |
| LOG15 (Alias) | 17p13.2 | ALOX15 |
| LOG5 (Alias) | 10q11.21 | ALOX5 |
| LOT1 (Alias) | 6q24.2 | PLAGL1 |
| LOXC (mouse) (Alias) | 10q24.2 | LOXL4 |
| LOX | 5q23.1 | LOX (lysyl oxidase) |
| LOXL2 | 8p21.3 | LOXL2 (lysyl oxidase-like 2) |
| LOXL3 | 2p13.1 | LOXL3 (lysyl oxidase-like 3) |
| LOXL4 | 10q24.2 | LOXL4 (lysyl oxidase-like 4) |
| LOXL (Alias) | 2p13.1 | LOXL3 |
| LOX | 5q23.1 | LOX (lysyl oxidase) |
| LP6728 (Alias) | 7q34 | TRPV6 |
| LPA-1 (Alias) | 9q31.3 | LPAR1 |
| LPA1 (Alias) | 9q31.3 | LPAR1 |
| LPA-2 (Alias) | 19p13.11 | LPAR2 |
| LPA2 (Alias) | 19p13.11 | LPAR2 |
| LPAR1 | 9q31.3 | LPAR1 (lysophosphatidic acid receptor 1) |
| LPAR2 | 19p13.11 | LPAR2 (lysophosphatidic acid receptor 2) |
| LPC1 (Alias) | 9q21.13 | ANXA1 |
| LPGP1 (Alias) | 11q14.1 | THRSP |
| Lpgp (Alias) | 11q14.1 | THRSP |
| LPHH1 (Alias) | 1p31.1 | LPHN2 |
| LPHN2 | 1p31.1 | LPHN2 (latrophilin 2) |
| L-Plastine (Alias) | 13q14.13 | LCP1 |
| LPP | 3q28 | LPP (lipoma preferred partner) |
| LPTP (Alias) | 1q32.1 | PTPN7 |
| LR3 (Alias) | 11q13.2 | LRP5 |
| LRF (Alias) | 19p13.3 | ZBTB7A |
| LRIG1 | 3p14.1 | LRIG1 (leucine-rich repeats and immunoglobulin-like domains 1) |

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| LRIG3 | 12q14.1 | LRIG3 (Leucine-Rich Repeats And Immunoglobulin-Like Domains 3) |
| LRP16 (Alias) | 11q13.1 | MACROD1 |
| LRP1B | 2q22.1 | LRP1B (low density lipoprotein receptor-related protein 1B) |
| LRP5 | 11q13.2 | LRP5 (low density lipoprotein receptor-related protein 5) |
| LRP7 (Alias) | 11q13.2 | LRP5 |
| LRP (Alias) | 20p13 | PTPRA |
| LRP-DIT (Alias) | 2q22.1 | LRP1B |
| LRPDIT (Alias) | 2q22.1 | LRP1B |
| LRP (lung resistance-related protein) (Alias) | 16p11.2 | MVP |
| LSH (Alias) | 10q23.33 | HELLS |
| LSH-R (Alias) | 2p16.3 | LHCGR |
| LSIRF (Alias) | 6p25.3 | IRF4 |
| LTA | 6p21.33 | LTA (Lymphotoxin-A) |
| LTG19 (Alias) | 19p13.3 | MLLT1 |
| LTG9 (Alias) | 9p21.3 | MLLT3 |
| LTRPC1 (Alias) | 15q13.3 | TRPM1 |
| LTRPC6 (Alias) | 2q37.1 | TRPM8 |
| LUCA-15 (Alias) | 3p21.31 | RBM5 |
| LUCA-1 (Alias) | 3p21.31 | HYAL1 |
| LUCAI (Alias) | 3p21.31 | HYAL1 |
| LUCA-1 (Alias) | 3p21.31 | SEMA3B |
| LuCa-2 (Alias) | 3p21.31 | HYAL2 |
| LUCA2 (Alias) | 3p21.31 | HYAL2 |
| LUN (Alias) | 9p21.1 | TOPORS |
| LY57 (Alias) | 10q24.1 | BLNK |
| Ly74 (Alias) | 2p21 | EPCAM |
| LY95 (Alias) | 6p21.1 | NCR2 |
| LYF1 (Alias) | 7p12.2 | IKZF1 |
| LyGPR (Alias) | 7p22.3 | GPER1 |
| LYK (Alias) | 5q33.3 | ITK |
| LYL1 | 19p13.2 | LYL1 (lymphoblastic leukemia derived sequence 1) |
| LYPD3 | 19q13.31 | LYPD3 (LY6/PLAUR domain containing 3) |
| Lyt10 (Alias) | 10q24.32 | NFKB2 |
| LZ321 (Alias) | 6p24.3 | RREB1 |
| LZTS1 | 8p21.3 | LZTS1 (leucine zipper, putative tumor suppressor 1) |

References

1. Atlas of Genetics and Cytogenetics in Oncology and Haematology. Genes in cancer. http://atlasgeneticsoncology.org/Indexbyalpha/idxa_E.html. 2015.
2. HGNC. HUGO Gene Nomenclature Committee. <http://www.genenames.org>. 2015.
3. Ma H, Ma M. Stem Cell Introduction. *Stem Cell* 2014;5(2):1-10.
4. National Center for Biotechnology Information, U.S. National Library of Medicine. <http://www.ncbi.nlm.nih.gov/pubmed>. 2014.
5. Wikipedia. The free encyclopedia. <http://en.wikipedia.org>. 2014.

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