

module	Main Functions	Significance	Number of Associated Genes	List of genes
ESR1	Small Molecule Biochemistry	1.66E-03/4.91E-02	32	ABCD3, ACOX3, ADIPOR2, ASAH1, CBS, CHGN, CP, DCI, DCXR, ELOVL2, FABP5, FOLR1, GRIA2, HSD17B4, IL8, LASSA, LRP2, MPG, ODC1, PEX7, PGR, PLA2G10, PLA2G4A, PLOD3, PKRAA1, PTGFR, PTX3, SEC14L2, SLCT2A2, SLC5A6, SRD5A1, SREBF1
	Cancer	6.99E-03/4.91E-02	28	ALCAM, APBB2, APBB3, CD24, CH3L1, CX3CL1, CXADR, DSCR1, FZD9, GATA6, GDF15, GFRA1, ICAM1, IL8, LMO4, LY6D, MGMT, MPG, MYB, NCL, NOTCH1, PCDCA, PGR, S100A1, SOD2, SSBP2, TFF1, TFF3
	Lipid Metabolism	1.66E-03/4.91E-02	22	ABCD3, ACOX3, ADIPOR2, ASAH1, DCI, ELOVL2, FABP5, HSD17B4, IL8, LASSA, LRP2, PEX7, PGR, PLA2G10, PLA2G4A, PKRAA1, PTGFR, PTX3, SEC14L2, SLCT2A2, SRD5A1, SREBF1
	Molecular Transport	6.99E-03/4.91E-02	19	ABCD3, DCI, IL8, KCNJ3, KNKNS, LASSA, LRP2, MPG, NEDD4, ODC1, PGR, PLA2G10, PLA2G4A, PTGFR, SATB1, SLC15A1, SLC5A6, SREBF1, TFR
	Cellular Movement	2.41E-03/4.91E-02	18	ALCAM, CCL20, CD24, CH3L1, CX3CL1, ERBB4, GDF15, GLI3, GRIA2, IL8, LY6D, MSX2, PCDCA, RLN2, S100A9, SERPINB5, TFF1, TFF3
	Cellular Growth and Proliferation	6.99E-03/4.91E-02	14	ADAMTS1, DSCR1, FZD9, ID4, IL7, KRT16, MST1, MYB, NDE1, NOTCH1, NUBP1, S100A1, SSBP2, ZIC1
	Cell Death	1.35E-02/4.91E-02	14	CX3CL1, IL7, IL12RB2, IL6ST, MSK2, MYB, PLA2G4A, PLAT, SERPINB5, SLC9A1, SOX10, STUB1, TFF3, UGT8
	Cell-To-Cell Signaling and Interaction	4.28E-02/4.91E-02	14	CCL20, CX3CL1, CXADR, GFRA1, ICAM1, IL7, IL8, MARCO, MST1, MYB, NCL, PCDH8, SERPINB5, SLC9A1
	Cell Morphology	6.99E-03/4.91E-02	12	ALCAM, CD24, CXADR, IFIT88, IL8, IRS1, MGMT, MIA, PGR, PLA2G4A, SLC39A1, XBP1
	Cellular Function and Maintenance	2.42E-02/4.91E-02	12	AREG, DNK1, GATAS2, HSPA2, IL7, IL8, LPIIN2, NOTCH1, PTX3, SOD2, SURF1, UOGRH
	Cellular Assembly and Organization	4.91E-02/4.91E-02	11	CXADR, ERBB4, GRIA2, IER3, IF788, KRT16, NDE1, PCDH8, PTX3, SERPINA3, XBP1
	Cell Cycle	2.18E-02/4.91E-02	8	APBB2, APBB3, IRS1, MGMT, MPG, NOTCH1, NUBP1, SOD2
	Immune Response	2.41E-03/4.91E-02	8	CCL20, CFB, CX3CL1, IL7, IL8, RLN2, S100A9
	Gene Expression	1.88E-02/4.91E-02	7	CEBPG, IL7, MIP3, MYB, PGR, SREBF1, TOS1
	Cell Signaling	2.18E-02/4.91E-02	6	CFB, FZD7, FZD9, GLI3, HHAT, IFIT88
	Cellular Compromise	4.91E-02/4.91E-02	6	BN1, GRIA2, MGMT, MSK2, PLAT, PTX3
	Nucleic Acid Metabolism	4.91E-02/4.91E-02	5	CBS, CHGN, DCXR, FOLR1, MPG
	DNA Replication, Recombination, and Repair	6.99E-03/4.91E-02	4	FOLR1, IER
ERBB2	Cancer	1.43E-03/4.72E-02	8	CEACAM5, CLCA2, CREG1, CYP2J2, ITGA3, PHB, RAP1GAP, THRA
	Cell-To-Cell Signaling and Interaction	1.43E-03/4.45E-02	6	CEACAM5, CLCA2, ITGA3, PHB, RAP1GAP, THRA
	Cellular Growth and Proliferation	2.84E-03/4.72E-02	5	CEACAM5, CREG1, CYP2J2, RAP1GAP, THRA
	Molecular Transport	5.67E-03/4.99E-02	5	ABCA12, CASC3, KIAA0703, PNMT, RAP1GAP
	Cell Morphology	2.94E-03/4.72E-02	4	ITGA3, PNMT, RAP1GAP, THRA
	Immune Response	2.84E-03/3.63E-02	4	CEACAM5, ITGA3, RAP1GAP, THRA
	Small Molecule Biochemistry	2.84E-03/4.72E-02	4	ABCA12, HGD, PNMT, RAP1GAP
	Cellular Compromise	5.67E-03/1.41E-02	4	CEACAM5, ITGA3, RAP1GAP, THRA
	Cellular Assembly and Organization	8.50E-03/2.83E-02	4	ITGA3, LASP1, RAP1GAP, THRA
	Tissue Development	2.84E-03/3.66E-02	3	HOCX11, ITGA3, THRA
	Gene Expression	8.50E-03/4.99E-02	3	CASC3, PHB, THRA
AURKA	Cellular Growth and Proliferation	5.46E-03/4.93E-02	35	ANG, BIRC5, BLM, CAV1, CDC7, CDH5, CKS1B, DIRAS3, FOS, FOXM1, FST, GAS6, GEM, IGF1, KIF20A, MCM2, RCE1, RPS6KB2, RUNX1T1, SFRP4, SLC26A3, SLIT2, SPRY2, STARD13, STMN1, SUV39H1, TGFBR3, TGFBR3, THBD, TIMELESS, TLR3, TYMS, UB2C, VTCN1, WNT5A
	Cancer	1.69E-03/4.90E-02	33	ANG, BIRC5, BLM, CAV1, CCNB1, CCNB2, CDC6, CDC7, CDH5, CDKN3, DIRAS3, FADD, FOS, FOXM1, FST, GAS6, GEM, IGF1, MAD2L1, MCM2, PKMYT1, POLD1, RUNX1T1, SLIT2, SPRY2, STARD13, STMN1, TGFBR3, TGFBR3, THBD, TLR3, TUBG1, TYMS, WNT5A
	Cell Cycle	7.22E-03/4.90E-02	32	BIRC5, BLM, BRNN1, CAV1, CCNB1, CCNB2, CDC6, CDC7, CDH5, CDKN3, CKAP5, CKS1B, COIL, FADD, FOS, FOXM1, GAS6, H2AFX, IGF1, KIF2C, KIF4A, MAD2L1, NEK2, PCOLN3, PKMYT1, RUNX1T1, SPRY2, SUV39H1, TP52L1, TPX2, TYMS, VTCN1
	DNA Replication, Recombination, and Repair	1.79E-04/4.74E-02	30	BIRC5, BLM, BRNN1, CAV1, CCNB1, CCNB2, CDC6, CDC7, CDH5, CDKN3, CKAP5, COIL, EXO1, HSF1, IGF1, KIF2C, KIF4A, MAD2L1, MCM2, MCM3, NEK2, NUDT1, PCOLN3, POLD1, PRN1, RNASEH2A, RUVBL1, SUV39H1, TP52L1, TPX2
	Cellular Assembly and Organization	1.31E-04/4.74E-02	28	ANG, BIRC5, BRNN1, CAV1, CCNB1, CCNB2, CDC7, CDH5, CDKN3, CKAP5, COIL, DDX56, DST, F3, FMOD, GAS6, HSF1, IGF1, KIF2C, KIF4A, MAD2L1, NEK2, PCOLN3, PKMYT1, RUNX1T1, SPRY2, SUV39H1, TP52L1, TPX2, TUBG1
	Cell Morphology	1.69E-03/4.74E-02	20	AQP1, BIRC5, CAV1, CCNB1, CCNB2, CDC7, CDH5, CDKN3, CKAP5, COIL, DDX56, DST, F3, FMOD, GAS6, HSF1, IGF1, KIF2C, KIF4A, MAD2L1, NEK2, SLIT2, SPRY2, STARD13, STMN1, TGFBR3, THBD
	Gene Expression	1.46E-02/4.74E-02	15	CAV1, CCNB1, FOS, HNRPA2B1, IGF1, NR2F2, PCOLN3, PER1, RUNX1T1, SUHBP1, SUV39H1, TGFBR3, TGFBR3, TIMELESS, TRIM24
	Cellular Compromise	6.97E-04/4.74E-02	13	AQP1, BIRC5, CCNB1, CCNB2, CDC7, CDH5, CDKN3, CKAP5, COIL, H2AFX, HSF1, IGF1, KIF2C, KIF4A, MAD2L1, NEK2, STMN1
	Cell Death	1.95E-03/4.90E-02	12	BIRC5, BLM, CAV1, CCNB1, CCNB2, CDC7, CDH5, CDKN3, CKAP5, COIL, DDX56, DST, F3, FMOD, GAS6, HSF1, IGF1, KIF2C, KIF4A, MAD2L1, NEK2, SLIT2, SPRY2, STARD13, STMN1, TGFBR3, THBD
	Tissue Morphology	7.22E-03/4.90E-02	12	CAV1, DLX2, FOS, FOXM1, FST, FZD4, HSF1, IGF1, NR2F2, PER1, STMN1, TK1
	Cellular Movement	1.69E-03/4.90E-02	11	CAV1, CCNB1, DST, FST, GEM, IGF1, SEMA5A, SLIT2, SPRY2, TGFBR3, WNT5A
	Cellular Development	1.95E-02/4.74E-02	10	BIRC5, CDC7, DLX2, FOS, FST, IGF1, RUNX1T1, SLIT2, TGFBR3, TIMELESS
	Small Molecule Biochemistry	2.40E-02/4.74E-02	10	AKS, CAV1, GGH, HPRT1, IGF1, NUDT1, RRM2, STMN1, SUV39H1, TYMS
	Cell-To-Cell Signaling and Interaction	1.69E-03/4.74E-02	6	CAV1, CDH5, F3, IGF1, TGFBR3, TLR3
	Molecular Transport	5.46E-03/4.74E-02	6	AQP1, GGH, IGF1, RRM2, SCNN1B, SFRP4
PLAU	Cellular Movement	1.22E-03/4.42E-02	18	ADAM12, AGC1, CAP1, DBN1, DDR2, FAP, GREM1, IGSF4, TNFRSF12A, VDR, MMP3, MMP14, NBL1, PDGFB, PDGFRB, SNAI2, TGFBR2, THY1
	Tissue Development	1.15E-03/4.76E-02	18	ADAM12, DDR2, EPHA4, GREM1, IGSF4, ISLR, ME2A, MMP14, PARVA, PDGFB, PDGFRB, POLM3, STAB1, TAGLN, TGFBR2, THY1, TNFRSF12A, VDR
	Cellular Development	2.82E-04/4.76E-02	16	ANGPTL2, BASP1, CAP1, EPHA4, IGSF4, JPH2, MMP3, MMP14, OSMR, PARVA, PDGFRB, POLM3, SNAI2, TGFBR2, TNFRSF12A, VDR
	Cancer	5.83E-04/4.76E-02	15	ADAM12, BCL3, DDR2, GLB1, GSF4, MMP3, MMP14, PDGFB, PDGFRB, PPP1R15A, SNAI2, TGFBR2, THY1, TRIM33, VDR
	Cell Morphology	5.83E-04/4.76E-02	13	ANGPTL2, BASP1, BCL3, CAP1, DBN1, EPHA4, MMP3, OSMR, PARVA, PDGFB, SNAI2, TGFBR2, VDR
	Cell-To-Cell Signaling and Interaction	4.08E-04/4.76E-02	13	ADAM12, DDR2, IGSF4, ISLR, MMP14, PARVA, PDGFB, PDGFRB, PPP1R15A, STAB1, TGFBR2, THY1, TNFRSF12A
	Tissue Morphology	2.82E-04/4.76E-02	11	ADAM12, GLB1, IGSF4, MMP3, MMP14, PDGFB, PDGFRB, SERPINH1, TGFBR2, THY1, VDR
	Cellular Assembly and Organization	6.94E-03/4.76E-02	11	AGC1, BASP1, CAP1, DBN1, EPHA4, IGSF4, MYO1B, PARVA, PDGFB, POLM3, SERPINH1, TAGLN
	Cellular Growth and Proliferation	2.82E-04/4.95E-02	10	ADAM12, ATP1F1, DDR2, MMP3, OSMR, PDGFB, PDGFRB, TGFBR2, THY1, TNFRSF1
	Small Molecule Biochemistry	6.94E-03/4.87E-02	9	ATP1F1, GPTT2, GLB1, MMP14, PDGFB, PDGFRB, SDS, TPST2, VDR
	Cellular Function and Maintenance	1.38E-02/4.76E-02	8	AGC1, CAP1, DPN1, GLB1, POLM3, PPP1R15A, STAB1, TRIM33
	Cell Death	4.75E-05/2.75E-02	7	ADAM12, GREM1, MMP14, GREM1, MMP14, PDGFB, PDGFRB, SNAI2, THY1
	Tumor Morphology	3.45E-03/4.76E-02	6	MMP3, MMP14, PDGFB, PDGFRB, SNAI2, TGFBR2
	Gene Expression	6.94E-03/4.09E-02	6	BCL3, ME2A, MMP3, OSMR, TGFBR2, VDR
STAT1	Immune Response	1.05E-02/7.64E-02	47	BST2, CCL5, CCL8, CCR2L2, CD2, CD48, CD69, CD93, CD40LG, CLEC4A, CTC5, CXCL9, CXCL10, CXCL11, EB2, EB3, EFNA1, FASLG, HPS, IFB3, IFI44, IGSF8, IL18, INDO, IRF1, IRF8, ISG15, ITGB2, KLRK1, LAG3, MX1, MX2, NMI, PM2, PLA2G7, PSME1, RASGRP1, SECTM1, SH2D1A, SP140, STAT4
	Cellular Growth and Proliferation	1.31E-08/2.64E-02	28	BST2, CCL5, CCL8, CD2, CD48, CD93, CD40LG, CXCL9, CXCL10, EB3, EGF1, EFNA1, FASLG, IFITM1, IL18, INDO, IRF1, IRF8, ISG15, ITGB2, KLRK1, LAG3, LAMP3, PM2, RASGRP1, SECTM1, SH2D1A, STAT4, VAV1
	Cell Signaling	6.74E-06/2.10E-02	27	BIRC3, CCL5, CCL8, CD2, CD48, CD93, CD40LG, CLEC4A, CXCL9, CXCL10, CXCL11, EFNA1, FASLG, GABBR1, IFITM1, IGSF6, IL18, IRF1, IRF8, ITGB2, KLRK1, LAG3, P2RX5, RASGRP1, SH2D1A, STAT4, VAV1
	Cell-To-Cell Signaling and Interaction	1.95E-07/2.64E-02	24	BST2, CCL5, CCL8, CD2, CD48, CD93, CD40LG, CLEC4A, CXCL9, CXCL10, CXCL11, EGF1, EFNA1, FASLG, IL18, IRF8, ITGB2, KLRK1, LAG3, P2RX5, RASGRP1, SECTM1, SH2D1A, STAT4, TRAF3, VAV1
	Cell Death	5.57E-07/2.26E-02	24	BIRC3, CCL5, CCL8, CD2, CD48, CD93, CD40LG, EFNA1, FASLG, GLRX, HCLS1, IL18, IRF1, IRF8, ISG15, ITGB2, KLRK1, LAG3, PACAP, PM2, PLAC8, SH2D1A, STAT4, TRAF3, VAV1
	Cancer	1.43E-05/2.27E-02	20	BIRC3, CCL5, CCL8, CD2, CD48, CD93, CD40LG, CXCL9, CXCL10, ETV7, FASLG, GLRX, IL18, IRF1, IRF8, ISG15, ITGB2, KLRK1, SH2D1A, TRAF3, VAV1
	Small Molecule Biochemistry	1.87E-04/2.64E-02	19	APOC1, CCL5, CD2, CD40LG, CXCL10, DDAH2, ECGF1, FASLG, GABBR1, GLRX, IL18, INDO, IRF1, IRF8, ITGB2, MX1, PLA2G7, RASGRP1, STAT4
	Tissue Morphology	1.69E-06/1.95E-02	18	CCL5, CD69, CD93, CD40LG, CXCL10, EB3, FASLG, IL18, IRF1, IRF8, ISG15, ITGB2, LAG3, RASGRP1, SH2D1A, STAT4, TAP1, VAV1
	Cellular Development	2.91E-06/2.39E-02	18	CD2, CD69, CD93, CD40LG, CXCL10, CXCL11, EFNA1, FASLG, IL18, IRF1, IRF8, ITGB2, LAG3, PM2, RASGRP1, SH2D1A, STAT4, VAV1
	Molecular Transport	8.01E-04/1.95E-02	17	APOC1, CCL5, CCL8, CD2, CD93, CXCL9, CXCL10, CXCL11, ECGF1, GABBR1, IL18, ITGB2, KLRK1, PLA2G7, RASGRP1, TAP1, VAV1
	Cellular Movement	7.10E-06/2.45E-02	14	CCL5, CCL8, CCR2L2, CD69, CD40LG, CXCL9, CXCL10, CXCL11, ECGF1, EFNA1, FASLG, IL18, ITGB2, PLA2G7
	Tissue Development	9.94E-07/1.95E-02	13	CCL5, CD2, CD48, CD40LG, CLEC4A, CXCL9, CXCL10, CXCL11, FASLG, IL18, ITGB2, PSCDBP, VAV1
	Cell Morphology	1.54E-05/2.10E-02	12	CCL5, CCL8, CD2, CD40LG, CXCL9, CXCL10, EFNA1, FASLG, IL18, ITGB2, KLRK1, PLA2G7, RASGRP1, TAP1, VAV1
	Gene Expression	2.82E-02/2.56E-02	12	CD2, CD40LG, FASLG, IL18, IRF1, IRF8, MX1, PACAP, RFX5, SH2D1A, SP140, VAV1
	Post-Translational Modification	8.73E-03/1.95E-02	7	CCL5, CD2, CD48, EFNA1, INDO, ITGB2, SH2D1A
	Lipid Metabolism	3.78E-03/2.10E-02	7	APOC1, CD2, CD40LG, FASLG, ITGB2, MX1, PLA2G7
	Tumor Morphology	3.18E-04/1.95E-02	6	CXCL9, CXCL10A, FASLG, IL18, SH2D1A, VAV1
	Cellular Compromise	7.98E-03/1.95E-02	6	CCL5, CD2, CD40LG, FASLG, IRF1, VAV1
	Cellular Function and Maintenance	9.78E-03/1.95E-02	6	FASLG, IL18, IRF8, ITGB2, LAG3, VAV1
VEGF	Cancer	2.73E-03/2.03E-02	3	CHKA, LMO2, MEOX1
	Gene Expression	1.37E-03/2.17E-02	2	KLF13, LEMD3
	Lipid Metabolism	1.37E-03/6.82E-03	2	CD1C, MLYCD
	Small Molecule Biochemistry	1.37E-03/6.82E-03	2	CD1C, MLYCD
	Cellular Development	1.36E-02/4.42E-02	2	CHKA, LMO2
CASP3	Protein Synthesis	2.86E-03/8.25E-03	3	ANAPC10, SARS, USP11
	Cellular Assembly and Organization	1.89E-03/8.49E-03	2	JUP, ARL2
	Protein Degradation	2.86E-03/2.86E-03	2	ANAPC10, USP11
	Cellular Movement	9.43E-03/4.73E-03	2	JUP, SARS