

RT² Profiler PCR Array (384-Well Format)

Rat Apoptosis 384HT

Cat. no. 330231 PARN-3012ZE

For pathway expression analysis

Format	For use with the following real-time cyclers
RT ² Profiler PCR Array, Format E	Applied Biosystems® models 7900HT (384-well block), ViiA™ 7 (384-well block); Bio-Rad CFX384™
RT ² Profiler PCR Array, Format G	Roche® LightCycler® 480 (384-well block)

Description

The Rat Apoptosis RT² Profiler PCR Array profiles the expression of 370 key genes involved in apoptosis, or programmed cell death. The array includes the TNF ligands and their receptors; members of the bcl-2 family, BIR (baculoviral IAP repeat) domain proteins, CARD domain (caspase recruitment domain) proteins, death domain proteins, TRAF (TNF receptor-associated factor) domain proteins and caspases. These 370 genes are also grouped by their functional contribution to apoptosis, either anti-apoptosis or induction of apoptosis. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to apoptosis with this array.

For further details, consult the *RT² Profiler PCR Array Handbook*.



Sample & Assay Technologies

Shipping and storage

RT² Profiler PCR Arrays in formats E and G are shipped at ambient temperature, on dry ice, or blue ice packs depending on destination and accompanying products.

For long term storage, keep plates at –20°C.

Note: Ensure that you have the correct RT² Profiler PCR Array format for your real-time cycler (see table above).

Note: Open the package and store the products appropriately immediately on receipt.

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Rn.15500	NM_053720	Aatf	Apoptosis antagonizing transcription factor
A02	Rn.3105	NM_001100850	Abl1	C-abl oncogene 1, receptor tyrosine kinase
A03	Rn.214018	NM_199230	Acvr1b	Activin A receptor, type IB
A04	Rn.32078	NM_017155	Adora1	Adenosine A1 receptor
A05	Rn.6319	NM_134432	Agt	Angiotensinogen (serpin peptidase inhibitor, clade A, member 8)
A06	Rn.9814	NM_030985	Agtr1a	Angiotensin II receptor, type 1a
A07	Rn.91370	NM_013149	Ahr	Aryl hydrocarbon receptor
A08	Rn.203165	NM_031356	Aifm1	Apoptosis-inducing factor, mitochondrion-associated 1
A09	Rn.1357	NM_001139483	Aifm2	Apoptosis-inducing factor, mitochondrion-associated 2
A10	Rn.11422	NM_033230	Akt1	V-akt murine thymoma viral oncogene homolog 1
A11	Rn.102669	NM_001106259	Akt1s1	AKT1 substrate 1 (proline-rich)
A12	Rn.66513	NM_001105798	Alox12	Arachidonate 12-lipoxygenase
A13	Rn.86437	NM_153301	Alox15b	Arachidonate 15-lipoxygenase, type B
A14	Rn.1792	NM_012904	Anxa1	Annexin A1
A15	Rn.19270	NM_024155	Anxa4	Annexin A4
A16	Rn.64522	NM_023979	Apaf1	Apoptotic peptidase activating factor 1
A17	Rn.88057	NM_012499	Apc	Adenomatous polyposis coli
A18	Rn.103083	NM_001127379	Api5	Apoptosis inhibitor 5
A19	Rn.32351	NM_138828	Apoe	Apolipoprotein E
A20	Rn.2104	NM_019288	App	Amyloid beta (A4) precursor protein
A21	Rn.195729	NM_172336	Atf5	Activating transcription factor 5
A22	Rn.214048	NM_001106821	Atm	Ataxia telangiectasia mutated homolog (human)
A23	Rn.145049	NM_001107757	Aven	Apoptosis, caspase activation inhibitor
A24	Rn.36696	NM_022698	Bad	BCL2-associated agonist of cell death
B01	Rn.16320	NM_001106647	Bag1	BCL2-associated athanogene
B02	Rn.46304	NM_001011936	Bag3	Bcl2-associated athanogene 3
B03	Rn.163329	NM_001025130	Bag4	BCL2-associated athanogene 4
B04	Rn.14598	NM_053812	Bak1	BCL2-antagonist/killer 1
B05	Rn.10668	NM_017059	Bax	Bcl2-associated X protein
B06	Rn.25176	NM_173837	Bbc3	Bcl-2 binding component 3
B07	Rn.13007	NM_031328	Bcl10	B-cell CLL/lymphoma 10
B08	Rn.9996	NM_016993	Bcl2	B-cell CLL/lymphoma 2
B09	Rn.19770	NM_133416	Bcl2a1d	B-cell leukemia/lymphoma 2 related protein A1d
B10	Rn.10323	NM_031535	Bcl2l1	Bcl2-like 1
B11	Rn.67084	NM_053733	Bcl2l10	BCL2-like 10 (apoptosis facilitator)
B12	Rn.82709	NM_022612	Bcl2l11	BCL2-like 11 (apoptosis facilitator)
B13	Rn.103700	NM_001107885	Bcl2l13	BCL2-like 13 (apoptosis facilitator)
B14	Rn.44267	NM_021850	Bcl2l2	Bcl2-like 2
B15	Rn.20571	NM_001107084	Bcl6	B-cell CLL/lymphoma 6
B16	Rn.15652	NM_001047852	Bclaf1	BCL2-associated transcription factor 1
B17	Rn.11266	NM_012513	Bdnf	Brain-derived neurotrophic factor
B18	Rn.2776	NM_053739	Becn1	Beclin 1, autophagy related
B19	Rn.159939	NM_001013125	Bfar	Bifunctional apoptosis regulator
B20	Rn.31142	NM_022684	Bid	BH3 interacting domain death agonist
B21	Rn.38487	NM_053704	Bik	BCL2-interacting killer (apoptosis-inducing)
B22	Rn.205955	NM_021752	Birc2	Baculoviral IAP repeat-containing 2
B23	Rn.64578	NM_023987	Birc3	Baculoviral IAP repeat-containing 3
B24	Rn.54471	NM_022274	Birc5	Baculoviral IAP repeat-containing 5
C01	Rn.201492	XM_233842	Birc6	Baculoviral IAP repeat-containing 6
C02	Rn.17989	XM_238302	Birc7	Baculoviral IAP repeat-containing 7

Position	UniGene	GenBank	Symbol	Description
C03	Rn.16757	NM_080897	Bnip1	BCL2/adenovirus E1B interacting protein 1
C04	Rn.11821	NM_001106835	Bnip2	BCL2/adenovirus E1B interacting protein 2
C05	Rn.2060	NM_053420	Bnip3	BCL2/adenovirus E1B interacting protein 3
C06	Rn.827	NM_080888	Bnip3l	BCL2/adenovirus E1B interacting protein 3-like
C07	Rn.44461	NM_017312	Bok	BCL2-related ovarian killer
C08	Rn.205813	XM_231692	Braf	V-raf murine sarcoma viral oncogene homolog B1
C09	Rn.48840	NM_012514	Brcal	Breast cancer 1
C10	Rn.1432	NM_199270	Bre	Brain and reproductive organ-expressed protein
C11	Rn.26996	NM_001007798	Btk	Bruton agammaglobulinemia tyrosine kinase
C12	Rn.138066	NM_001130554	Card10	Caspase recruitment domain family, member 10
C13	Rn.7904	XM_001073551	Card11	Caspase recruitment domain family, member 11
C14	Rn.104526	NM_001106413	Card6	Caspase recruitment domain family, member 6
C15	Rn.64486	NM_022303	Card9	Caspase recruitment domain family, member 9
C16	Rn.37508	NM_012762	Casp1	Caspase 1
C17	Rn.198773	XM_234878	Casp14	Caspase 14
C18	Rn.1438	NM_022522	Casp2	Caspase 2
C19	Rn.10562	NM_012922	Casp3	Caspase 3
C20	Rn.16195	NM_053736	Casp4	Caspase 4, apoptosis-related cysteine peptidase
C21	Rn.88160	NM_031775	Casp6	Caspase 6
C22	Rn.53995	NM_022260	Casp7	Caspase 7
C23	Rn.54474	NM_022277	Casp8	Caspase 8
C24	Rn.198715	NM_001107921	Casp8ap2	Caspase 8 associated protein 2
D01	Rn.32199	NM_0011632	Casp9	Caspase 9, apoptosis-related cysteine peptidase
D02	Rn.137780	NM_001105822	Ccl12	Chemokine (C-C motif) ligand 12
D03	Rn.4772	NM_031530	Ccl2	Chemokine (C-C motif) ligand 2
D04	Rn.10328	NM_012830	Cd2	Cd2 molecule
D05	Rn.134200	NM_001024335	Cd27	CD27 molecule
D06	Rn.10327	NM_013121	Cd28	Cd28 molecule
D07	Rn.11414	NM_013127	Cd38	CD38 molecule
D08	Rn.25180	NM_134360	Cd40	CD40 molecule, TNF receptor superfamily member 5
D09	Rn.44218	NM_053353	Cd40lg	CD40 ligand
D10	Rn.11337	NM_019295	Cd5	Cd5 molecule
D11	Rn.103013	NM_001106878	Cd70	Cd70 molecule
D12	Rn.1303	NM_031334	Cdh1	Cadherin 1
D13	Rn.10089	NM_080782	Cdkn1a	Cyclin-dependent kinase inhibitor 1A
D14	Rn.29897	NM_031762	Cdkn1b	Cyclin-dependent kinase inhibitor 1B
D15	Rn.48717	NM_031550	Cdkn2a	Cyclin-dependent kinase inhibitor 2A
D16	Rn.6479	NM_024125	Cebpb	CCAAT/enhancer binding protein (C/EBP), beta
D17	Rn.10332	NM_012831	Cebpg	CCAAT/enhancer binding protein (C/EBP), gamma
D18	Rn.128746	NM_199378	Cfdp1	Craniofacial development protein 1
D19	Rn.11675	NM_017147	Cfl1	Cofilin 1, non-muscle
D20	Rn.204752	NM_057138	Cflar	CASP8 and FADD-like apoptosis regulator
D21	Rn.163213	NM_053677	Chk2	CHK2 checkpoint homolog (S. pombe)
D22	Rn.8171	NM_001170467	Cidea	Cell death-inducing DFFA-like effector a
D23	Rn.204016	NM_001108869	Cideb	Cell death-inducing DFFA-like effector b
D24	Rn.12030	XM_241632	Col18a1	Collagen, type XVIII, alpha 1
E01	Rn.121139	NM_001135759	Col4a3	Collagen, type IV, alpha 3
E02	Rn.127769	NM_012534	Cryaa	Crystallin, alpha A
E03	Rn.98208	NM_012935	Cryab	Crystallin, alpha B
E04	Rn.44285	XM_340799	Csf2	Colony stimulating factor 2 (granulocyte-macrophage)
E05	Rn.112601	NM_053357	Cttnb1	Catenin (cadherin associated protein), beta 1
E06	Rn.68078	NM_001108627	Cul1	Cullin 1
E07	Rn.2970	NM_001108417	Cul2	Cullin 2
E08	Rn.101949	NM_001106923	Cul3	Cullin 3
E09	Rn.1987	NM_001127301	Cul4a	Cullin 4A
E10	Rn.163001	NM_022683	Cul5	Cullin 5
E11	Rn.2202	NM_012839	Cycc	Cytochrome c, somatic
E12	Rn.7262	NM_138910	Dad1	Defender against cell death 1
E13	Rn.1531	NM_022526	Dap	Death-associated protein
E14	Rn.1566	NM_001011950	Dap3	Death associated protein 3
E15	Rn.23108	NM_001107335	Dapk1	Death associated protein kinase 1
E16	Rn.98325	NM_001013109	Dapk2	Death-associated kinase 2
E17	Rn.60353	NM_022546	Dapk3	Death-associated protein kinase 3
E18	Rn.870	NM_080891	Daxx	Death-domain associated protein
E19	Rn.11274	NM_012543	Dbp	D site of albumin promoter (albumin D-box) binding protein
E20	Rn.10666	NM_012841	Dcc	Deleted in colorectal carcinoma
E21	Rn.203056	NM_212532	Ddah2	Dimethylarginine dimethylaminohydrolase 2
E22	Rn.11183	NM_024134	Ddit3	DNA-damage inducible transcript 3
E23	Rn.137424	XM_227558	Ddx20	DEAD (Asp-Glu-Ala-Asp) box polypeptide 20
E24	Rn.203286	NM_031800	Dedd	Death effector domain-containing
F01	Rn.6514	NM_053679	Dffa	DNA fragmentation factor, alpha subunit

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F02	Rn.67077	NM_053362	Dffb	DNA fragmentation factor, beta polypeptide (caspase-activated DNase)
F03	Rn.9470	NM_001080148	Dhcr24	24-dehydrocholesterol reductase
F04	Rn.9090	NM_001008292	Diablo	Diablo homolog (Drosophila)
F05	Rn.17281	NM_001108516	Dpf2	D4, zinc and double PHD fingers family 2
F06	Rn.23189	NM_001108100	Dyrk2	Dual-specificity tyrosine-(Y)-phosphorylation regulated kinase 2
F07	Rn.72471	NM_001100778	E2f1	E2F transcription factor 1
F08	Rn.9764	NM_012660	Eef1a2	Eukaryotic translation elongation factor 1 alpha 2
F09	Rn.6593	NM_001025660	Ei24	Etoposide induced 2.4 mRNA
F10	Rn.24897	NM_031599	Eif2ak3	Eukaryotic translation initiation factor 2 alpha kinase 3
F11	Rn.3807	NM_001034938	Endog	Endonuclease G
F12	Rn.12447	XM_576312	Ep300	E1A binding protein p300
F13	Rn.11365	NM_017001	Epo	Erythropoietin
F14	Rn.207836	NM_170788	Erc1	ELKS/RAB6-interacting/CAST family member 1
F15	Rn.44012	NM_001031644	Ercc3	Excision repair cross-complementing rodent repair deficiency, complementation group 3
F16	Rn.198336	XM_001081576	Ern1	Endoplasmic reticulum to nucleus signaling 1
F17	Rn.218563	NM_001108919	Ern2	Endoplasmic reticulum to nucleus signaling 2
F18	Rn.37460	NM_012754	Esr2	Estrogen receptor 2 (ER beta)
F19	Rn.54498	NM_022924	F2	Coagulation factor II (thrombin)
F20	Rn.2609	NM_012950	F2r	Coagulation factor II (thrombin) receptor
F21	Rn.16183	NM_152937	Fadd	Fas (TNFRSF6)-associated via death domain
F22	Rn.106419	NM_080895	Faim	Fas apoptotic inhibitory molecule
F23	Rn.162026	NM_144756	Faim2	Fas apoptotic inhibitory molecule 2
F24	Rn.162521	NM_139194	Fas	Fas (TNF receptor superfamily, member 6)
G01	Rn.9725	NM_012908	Faslg	Fas ligand (TNF superfamily, member 6)
G02	Rn.7680	NM_001011967	Fastk	Fas-activated serine/threonine kinase
G03	Rn.219320	NM_001108157	Fem1b	Fem-1 homolog b (C. elegans)
G04	Rn.31808	NM_019305	Fgf2	Fibroblast growth factor 2
G05	Rn.198207	XM_345975	Foxl2	Forkhead box L2
G06	Rn.24593	NM_001106395	Foxo3	Forkhead box O3
G07	Rn.53970	NM_019139	Gdnf	Glial cell derived neurotrophic factor
G08	Rn.38778	NM_001107169	Gli2	GLI family zinc finger 2
G09	Rn.108014	NM_207594	Glo1	Glyoxalase 1
G10	Rn.11323	NM_030826	Gpx1	Glutathione peroxidase 1
G11	Rn.89046	NM_022666	Grm4	Glutamate receptor, metabotropic 4
G12	Rn.10426	NM_032080	Gsk3b	Glycogen synthase kinase 3 beta
G13	Rn.87063	NM_012577	Gstp1	Glutathione S-transferase pi 1
G14	Rn.3763	NM_001106462	Hbxip	Hepatitis B virus x interacting protein
G15	Rn.1863	NM_001025409	Hdac1	Histone deacetylase 1
G16	Rn.17284	NM_053448	Hdac3	Histone deacetylase 3
G17	Rn.10468	NM_017017	Hgf	Hepatocyte growth factor
G18	Rn.10852	NM_024359	Hif1a	Hypoxia-inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)
G19	Rn.836	NM_001100475	Hip1	Huntingtin interacting protein 1
G20	Rn.8042	NM_001108622	Hipk2	Homeodomain interacting protein kinase 2
G21	Rn.8099	NM_031787	Hipk3	Homeodomain interacting protein kinase 3
G22	Rn.4121	NM_012963	Hmgb1	High mobility group box 1
G23	Rn.102180	NM_001098241	Hras	Harvey rat sarcoma virus oncogene
G24	Rn.89639	NM_057130	Hrk	Harakiri, BCL2 interacting protein (contains only BH3 domain)
H01	Rn.101146	NM_001012197	Hsp90b1	Heat shock protein 90, beta, member 1
H02	Rn.1950	NM_212504	Hspa1b	Heat shock 70kD protein 1B (mapped)
H03	Rn.7535	NM_001100658	Hspa9	Heat shock protein 9
H04	Rn.3841	NM_031970	Hspb1	Heat shock protein 1
H05	Rn.106093	NM_012966	Hspe1	Heat shock protein 1 (chaperonin 10)
H06	Rn.138436	NM_001106263	Htatip2	HIV-1 tat interactive protein 2, homolog (human)
H07	Rn.107325	NM_001106599	Htra2	Htra serine peptidase 2
H08	Rn.11193	NM_024357	Htt	Huntingtin
H09	Rn.2113	NM_012797	Id1	Inhibitor of DNA binding 1
H10	Rn.23638	NM_212505	Ier3	Immediate early response 3
H11	N/A	XM_233152	Ifna2	Interferon alpha family, gene 2
H12	Rn.138105	NM_019127	Ifnb1	Interferon beta 1, fibroblast
H13	Rn.10795	NM_138880	Ifng	Interferon gamma
H14	Rn.63846	NM_001107093	Ift57	Intraflagellar transport 57 homolog (Chlamydomonas)
H15	Rn.6282	NM_178866	Igf1	Insulin-like growth factor 1
H16	Rn.10957	NM_052807	Igf1r	Insulin-like growth factor 1 receptor
H17	Rn.13471	NM_001009430	Ikbip	IKKB interacting protein
H18	Rn.214715	NM_199103	Ikbkg	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase gamma
H19	Rn.9868	NM_012854	Il10	Interleukin 10
H20	Rn.11118	NM_019165	Il18	Interleukin 18
H21	Rn.12300	NM_017019	Il1a	Interleukin 1 alpha
H22	Rn.9871	NM_053836	Il2	Interleukin 2

Position	UniGene	GenBank	Symbol	Description
H23	Rn.9872	NM_013163	Il2ra	Interleukin 2 receptor, alpha
H24	Rn.108255	NM_201270	Il4	Interleukin 4
I01	Rn.9873	NM_012589	Il6	Interleukin 6
I02	Rn.10793	NM_013110	Il7	Interleukin 7
I03	Rn.8831	NM_012590	Inha	Inhibin alpha
I04	Rn.9874	NM_017128	Inhba	Inhibin beta-A
I05	Rn.989	NM_019130	Ins2	Insulin 2
I06	Rn.18909	NM_031514	Jak2	Janus kinase 2
I07	Rn.44216	NM_021843	Kitlg	KIT ligand
I08	Rn.103924	NM_053976	Krt18	Keratin 18
I09	Rn.11083	NM_199370	Krt8	Keratin 8
I10	Rn.10479	NM_012594	Lalba	Lactalbumin, alpha
I11	Rn.22791	NM_001100709	Lck	Lymphocyte-specific protein tyrosine kinase
I12	Rn.57	NM_019904	Lgals1	Lectin, galactoside-binding, soluble, 1
I13	Rn.127674	XM_219485	Lrdd	Leucine-rich repeats and death domain containing
I14	Rn.160577	NM_080769	Lta	Lymphotoxin alpha (TNF superfamily, member 1)
I15	Rn.203016	NM_212507	Ltb	Lymphotoxin beta (TNF superfamily, member 3)
I16	Rn.19329	NM_001008315	Ltbr	Lymphotoxin beta receptor (TNFR superfamily, member 3)
I17	Rn.90117	NM_053585	Madd	MAP-kinase activating death domain
I18	Rn.10174	NM_012798	Mal	Mal, T-cell differentiation protein
I19	Rn.86215	XM_225927	Malt1	Mucosa associated lymphoid tissue lymphoma translocation gene 1
I20	Rn.130504	XM_218368	Map3k10	Mitogen activated protein kinase kinase kinase 10
I21	Rn.34914	NM_053842	Mapk1	Mitogen activated protein kinase 1
I22	Rn.4090	XM_341399	Mapk8	Mitogen-activated protein kinase 8
I23	Rn.91464	XM_235565	Mapk8ip2	Mitogen-activated protein kinase 8 interacting protein 2
I24	Rn.9910	NM_017322	Mapk9	Mitogen-activated protein kinase 9
J01	Rn.179073	XM_001059437	Mbd4	Methyl-CpG binding domain protein 4
J02	Rn.129914	NM_021846	Mcl1	Myeloid cell leukemia sequence 1
J03	Rn.10209	NM_031055	Mmp9	Matrix metalloproteinase 9
J04	Rn.47782	NM_001107036	Mpo	Myeloperoxidase
J05	Rn.98516	NM_001100833	Mtch1	Mitochondrial carrier homolog 1 (C. elegans)
J06	Rn.105169	NM_001012069	Mil5	Metallothionein-like 5, testis-specific (tesmin)
J07	Rn.10374	NM_134350	Mx2	Myxovirus (influenza virus) resistance 2
J08	Rn.20824	NM_001106536	Mybl2	Myeloblastosis oncogene-like 2
J09	Rn.12072	NM_012603	Myc	Myelocytomatosis oncogene
J10	Rn.92423	XM_226742	Naip2	NLR family, apoptosis inhibitory protein 2
J11	Rn.1261	NM_001106489	Ndufs3	NADH dehydrogenase (ubiquinone) Fe-S protein 3
J12	Rn.2411	XM_342346	Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
J13	Rn.204814	NM_001008349	Nfkb2	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 2, p49/p100
J14	Rn.22168	XM_227525	Ngf	Nerve growth factor (beta polypeptide)
J15	Rn.10980	NM_012610	Ngfr	Nerve growth factor receptor (TNFR superfamily, member 16)
J16	Rn.144882	NM_001106707	Nlrc4	NLR family, CARD domain containing 4
J17	Rn.108865	NM_001169142	Nlrp12	NLR family, pyrin domain containing 12
J18	Rn.12490	NM_001145755	Nlrp1a	NLR family, pyrin domain containing 1A
J19	Rn.214177	XM_220513	Nlrp3	NLR family, pyrin domain containing 3
J20	Rn.8785	NM_053507	Nme3	Non-metastatic cells 3, protein expressed in
J21	Rn.218600	NM_001106172	Nod2	Nucleotide-binding oligomerization domain containing 2
J22	Rn.86956	NM_053516	Nol3	Nucleolar protein 3 (apoptosis repressor with CARD domain)
J23	Rn.25046	NM_001105721	Notch1	Notch homolog 1, translocation-associated (Drosophila)
J24	Rn.65930	NM_024358	Notch2	Notch homolog 2 (Drosophila)
K01	Rn.90070	NM_012576	Nr3c1	Nuclear receptor subfamily 3, group C, member 1
K02	Rn.10000	NM_024388	Nr4a1	Nuclear receptor subfamily 4, group A, member 1
K03	Rn.22434	NM_001136151	Nrg2	Neuregulin 2
K04	Rn.9715	NM_031073	Nrf3	Neurotrophin 3
K05	Rn.39098	NM_021589	Ntrk1	Neurotrophic tyrosine kinase, receptor, type 1
K06	Rn.40265	NM_207596	Nudt2	Nudix (nucleoside diphosphate linked moiety X)-type motif 2
K07	Rn.11182	NM_053611	Nupr1	Nuclear protein, transcriptional regulator, 1
K08	Rn.9783	NM_133585	Opa1	Optic atrophy 1 homolog (human)
K09	Rn.151869	NM_001107781	Pak7	P21 protein (Cdc42/Rac)-activated kinase 7
K10	Rn.9535	NM_001106247	Pcd5	Programmed cell death 5
K11	Rn.104071	NM_001107452	Pcd6	Programmed cell death 6
K12	Rn.155339	NM_001013231	Pea15a	Phosphoprotein enriched in astrocytes 15A
K13	Rn.44193	NM_133399	Pik3ca	Phosphoinositide-3-kinase, catalytic, alpha polypeptide
K14	Rn.22497	NM_022185	Pik3r2	Phosphoinositide-3-kinase, regulatory subunit 2 (beta)
K15	Rn.6977	NM_012760	Plagl1	Pleiomorphic adenoma gene-like 1
K16	Rn.107493	NM_001106528	Plagl2	Pleiomorphic adenoma gene-like 2
K17	Rn.9380	NM_001013148	Plekhf1	Pleckstrin homology domain containing, family F (with FYVE domain) member 1
K18	Rn.20178	NM_053491	Plg	Plasminogen
K19	Rn.163380	NM_001008385	Pmaip1	Phorbol-12-myristate-13-acetate-induced protein 1
K20	Rn.214058	XM_236296	Pml	Promyelocytic leukemia
K21	Rn.18738	NM_001107194	Pogk	Pogo transposable element with KRAB domain

Position	UniGene	GenBank	Symbol	Description
K22	Rn.9346	NM_017141	Polb	Polymerase (DNA directed), beta
K23	Rn.198983	XM_341372	Pou4f1	POU class 4 homeobox 1
K24	Rn.30183	NM_001108062	Ppp1r13b	Protein phosphatase 1, regulatory (inhibitor) subunit 13B
L01	Rn.1271	NM_017039	Ppp2ca	Protein phosphatase 2, catalytic subunit, alpha isoform
L02	Rn.4108	NM_057140	Ppp2r1a	Protein phosphatase 2 (formerly 2A), regulatory subunit A, alpha isoform
L03	Rn.163017	NM_001025418	Ppp2r1b	Protein phosphatase 2 (formerly 2A), regulatory subunit A, beta isoform
L04	Rn.2511	NM_017169	Prdx2	Peroxiredoxin 2
L05	Rn.87789	NM_019142	Prkaa1	Protein kinase, AMP-activated, alpha 1 catalytic subunit
L06	Rn.207908	NM_001105713	Prkca	Protein kinase C, alpha
L07	Rn.216481	NM_017171	Prkce	Protein kinase C, epsilon
L08	Rn.1109	NM_022507	Prkcz	Protein kinase C, zeta
L09	Rn.24110	NM_001108327	Prkdc	Protein kinase, DNA activated, catalytic polypeptide
L10	Rn.3217	NM_001024780	Prkra	Protein kinase, interferon inducible double stranded RNA dependent activator
L11	Rn.9757	NM_012630	Prlr	Prolactin receptor
L12	Rn.3936	NM_012631	Prnp	Prion protein
L13	Rn.153570	NM_001135778	Prodh	Proline dehydrogenase
L14	Rn.211872	NM_138852	Prok2	Prokineticin 2
L15	Rn.86655	NM_153627	Prop1	PROP paired-like homeobox 1
L16	Rn.162499	XM_002725748	Prune2	Prune homolog 2 (Drosophila)
L17	Rn.44440	NM_019163	Psen1	Presenilin 1
L18	Rn.22158	NM_031606	Pten	Phosphatase and tensin homolog
L19	Rn.9768	NM_017044	Pth	Parathyroid hormone
L20	Rn.90166	NM_001109887	Ptprc	Protein tyrosine phosphatase, receptor type, C
L21	Rn.7817	NM_172322	Pycard	PYD and CARD domain containing
L22	Rn.33262	NM_012639	Raf1	V-raf-leukemia viral oncogene 1
L23	Rn.12223	NM_013135	Rasa1	RAS p21 protein activator (GTPase activating protein) 1
L24	Rn.19480	NM_199267	Rela	V-rel reticuloendotheliosis viral oncogene homolog A (avian)
M01	Rn.64865	NM_001107978	RGD1559610	Similar to CGI-94 protein
M02	Rn.107401	NM_057132	Rhoa	Ras homolog gene family, member A
M03	Rn.7572	NM_001107350	Ripk1	Receptor (TNFRSF)-interacting serine-threonine kinase 1
M04	Rn.102179	XM_342810	Ripk2	Receptor-interacting serine-threonine kinase 2
M05	Rn.7110	NM_139342	Ripk3	Receptor-interacting serine-threonine kinase 3
M06	Rn.2768	NM_001106848	Rnf7	Ring finger protein 7
M07	Rn.94935	NM_017153	Rps3a	Ribosomal protein S3a
M08	Rn.1348	NM_031831	Rtn4	Reticulon 4
M09	Rn.205217	NM_130425	Runx3	Runt-related transcription factor 3
M10	Rn.8937	NM_013191	S100b	S100 calcium binding protein B
M11	Rn.198907	NM_001108305	Sap30bp	SAP30 binding protein
M12	Rn.25144	NM_031596	Sart1	Squamous cell carcinoma antigen recognized by T cells
M13	Rn.16190	XM_225215	Sema4d	Sema domain, immunoglobulin domain (Ig), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4D
M14	Rn.3775	NM_001008312	Serinc3	Serine incorporator 3
M15	Rn.42912	NM_021696	Serpnb2	Serpin peptidase inhibitor, clade B (ovalbumin), member 2
M16	Rn.95177	NM_001007732	Serpnb9	Serpin peptidase inhibitor, clade B (ovalbumin), member 9
M17	Rn.145079	XM_232745	Sfn	Stratifin
M18	Rn.163333	XM_224987	Sfrp1	Secreted frizzled-related protein 1
M19	Rn.203013	NM_001011929	Sh3glb1	SH3-domain GRB2-like endophilin B1
M20	Rn.10432	NM_017221	Shh	Sonic hedgehog
M21	Rn.24935	NM_001004089	Sipa1	Signal-induced proliferation-associated 1
M22	Rn.23843	NM_001100982	Siva1	SIVA1, apoptosis-inducing factor
M23	Rn.103854	NM_001025400	Smndc1	Survival motor neuron domain containing 1
M24	Rn.1827	NM_019169	Snca	Synuclein, alpha (non A4 component of amyloid precursor)
N01	Rn.205056	NM_058208	Socs2	Suppressor of cytokine signaling 2
N02	Rn.127801	NM_053565	Socs3	Suppressor of cytokine signaling 3
N03	Rn.6059	NM_017050	Sod1	Superoxide dismutase 1, soluble
N04	Rn.10488	NM_017051	Sod2	Superoxide dismutase 2, mitochondrial
N05	Rn.7967	NM_001170327	Son	Son DNA binding protein
N06	Rn.18522	NM_133386	Sphk1	Sphingosine kinase 1
N07	Rn.11144	XM_344964	Spn	Sialophorin
N08	Rn.8871	NM_012881	Spp1	Secreted phosphoprotein 1
N09	Rn.34418	NM_012659	Sst	Somatostatin
N10	Rn.10458	NM_133522	Sstr3	Somatostatin receptor 3
N11	Rn.14662	NM_138531	Stambp	Stam binding protein
N12	Rn.33229	NM_032612	Stat1	Signal transducer and activator of transcription 1
N13	Rn.154399	NM_017064	Stat5a	Signal transducer and activator of transcription 5A
N14	Rn.54486	NM_022380	Stat5b	Signal transducer and activator of transcription 5B
N15	Rn.163064	NM_133392	Stk17b	Serine/threonine kinase 17b
N16	Rn.3474	NM_001004199	Tax1bp1	Tax1 (human T-cell leukemia virus type I) binding protein 1
N17	Rn.30683	NM_001106786	Tbk1	TANK-binding kinase 1
N18	Rn.162144	NM_181638	Tbx3	T-box 3

Position	UniGene	GenBank	Symbol	Description
N19	Rn.6327	NM_001009964	Tbx5	T-box 5
N20	N/A	XM_001056317	Tdgf1	Teratocarcinoma-derived growth factor 1
N21	Rn.40136	NM_021578	Tgfb1	Transforming growth factor, beta 1
N22	Rn.198158	NM_001012096	Tia1	TIA1 cytotoxic granule-associated RNA binding protein
N23	Rn.162475	NM_001013193	Tial1	Tia1 cytotoxic granule-associated RNA binding protein-like 1
N24	Rn.119634	NM_012886	Timp3	TIMP metalloproteinase inhibitor 3
O01	Rn.46387	NM_198769	Tlr2	Toll-like receptor 2
O02	Rn.1822	NM_001024800	Tmx1	Thioredoxin-related transmembrane protein 1
O03	Rn.2275	NM_012675	Tnf	Tumor necrosis factor (TNF superfamily, member 2)
O04	Rn.116157	NM_001107387	Tnfaip8	Tumor necrosis factor, alpha-induced protein 8
O05	Rn.105558	NM_001108873	Tnfrsf10b	Tumor necrosis factor receptor superfamily, member 10b
O06	Rn.202973	NM_012870	Tnfrsf11b	Tumor necrosis factor receptor superfamily, member 11b
O07	Rn.111119	NM_013091	Tnfrsf1a	Tumor necrosis factor receptor superfamily, member 1a
O08	Rn.83633	NM_130426	Tnfrsf1b	Tumor necrosis factor receptor superfamily, member 1b
O09	Rn.98293	NM_001108207	Tnfrsf21	Tumor necrosis factor receptor superfamily, member 21
O10	Rn.106560	NM_001137644	Tnfrsf25	Tumor necrosis factor receptor superfamily, member 25
O11	Rn.11322	NM_019135	Tnfrsf8	Tumor necrosis factor receptor superfamily, member 8
O12	Rn.22307	NM_001025773	Tnfrsf9	Tumor necrosis factor receptor superfamily, member 9
O13	Rn.83627	NM_145681	Tnfsf10	Tumor necrosis factor (ligand) superfamily, member 10
O14	N/A	XM_236794	Tnfsf14	Tumor necrosis factor (ligand) superfamily, member 14
O15	Rn.84873	NM_145765	Tnfsf15	Tumor necrosis factor (ligand) superfamily, member 15
O16	N/A	XM_344166	Tnfsf18	Tumor necrosis factor (ligand) superfamily, member 18
O17	Rn.54443	NM_030989	Tp53	Tumor protein p53
O18	Rn.50333	XM_223012	Tp53bp2	Tumor protein p53 binding protein, 2
O19	Rn.42907	NM_019221	Tp63	Tumor protein p63
O20	Rn.103860	NM_001108696	Tp73	Tumor protein p73
O21	Rn.18545	NM_001100480	Tradd	TNFRSF1A-associated via death domain
O22	Rn.105232	NM_001107815	Traf2	Tnf receptor-associated factor 2
O23	Rn.12033	NM_001108724	Traf3	Tnf receptor-associated factor 3
O24	Rn.220435	NM_001107754	Traf6	Tnf receptor-associated factor 6
P01	Rn.163128	NM_001127548	Traf7	Tnf receptor-associated factor 7
P02	Rn.8891	NM_001109004	Traip	TRAF-interacting protein
P03	Rn.21970	NM_031345	Tsc22d3	TSC22 domain family, member 3
P04	Rn.10127	NM_022862	Unc13b	Unc-13 homolog B (C. elegans)
P05	Rn.98891	NM_053864	Vcp	Valosin-containing protein
P06	Rn.1923	NM_031836	Vegfa	Vascular endothelial growth factor A
P07	Rn.11059	NM_052801	Vhl	Von Hippel-Lindau tumor suppressor
P08	Rn.91239	NM_022231	Xiap	X-linked inhibitor of apoptosis
P09	Rn.1292	NM_013011	Ywhaz	Tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta polypeptide
P10	Rn.56620	NM_001127293	Zc3hc1	Zinc finger, C3HC-type containing 1
P11	Rn.94978	NM_031144	Actb	Actin, beta
P12	Rn.1868	NM_012512	B2m	Beta-2 microglobulin
P13	Rn.47	NM_012583	Hprt1	Hypoxanthine phosphoribosyltransferase 1
P14	Rn.107896	NM_017025	Ldha	Lactate dehydrogenase A
P15	Rn.973	NM_001007604	Rplp1	Ribosomal protein, large, P1
P16	N/A	U26919	RGDC	Rat Genomic DNA Contamination
P17	N/A	U26919	RGDC	Rat Genomic DNA Contamination
P18	N/A	U26919	RGDC	Rat Genomic DNA Contamination
P19	N/A	SA_00104	RTC	Reverse Transcription Control
P20	N/A	SA_00104	RTC	Reverse Transcription Control
P21	N/A	SA_00104	RTC	Reverse Transcription Control
P22	N/A	SA_00103	PPC	Positive PCR Control
P23	N/A	SA_00103	PPC	Positive PCR Control
P24	N/A	SA_00103	PPC	Positive PCR Control

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RT ² SYBR Green qPCR Mastermix (8)*	For 4 x 384 assays in 384-well plates; suitable for use with real-time cyclers that do not require a reference dye, including: Bio-Rad model CFX384; Roche LightCycler 480 (384-well); all other cyclers	330501
RT ² SYBR Green ROX [™] qPCR Mastermix (8)*	For 4 x 384 assays in 384-well plates; suitable for use with the following real-time cyclers: Applied Biosystems models 7900HT, ViiA 7 (384-well blocks)	330521
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