

RT² Profiler PCR Array (96-Well Format and 384-Well [4 x 96] Format)

Mouse Neurogenesis

Cat. no. 330231 PAMM-404ZA

For pathway expression analysis

Format	For use with the following real-time cyclers
RT ² Profiler PCR Array, Format A	Applied Biosystems® models 5700, 7000, 7300, 7500, 7700, 7900HT, ViiA™ 7 (96-well block); Bio-Rad® models iCycler®, iQ™ 5, MyiQ™, MyiQ2; Bio-Rad/MJ Research Chromo4™; Eppendorf® Mastercycler® ep realplex models 2, 2s, 4, 4s; Stratagene® models Mx3005P®, Mx3000P®; Takara TP-800
RT ² Profiler PCR Array, Format C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)
RT ² Profiler PCR Array, Format D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®
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 F	Roche® LightCycler® 480 (96-well block)
RT ² Profiler PCR Array, Format G	Roche LightCycler 480 (384-well block)
RT ² Profiler PCR Array, Format H	Fluidigm® BioMark™



Sample & Assay Technologies

Description

The Mouse Neurogenesis RT² Profiler PCR Array profiles the expression of 84 genes related to the processes of neurogenesis and neural stem cell differentiation. Genes related to the regulation of key neurogenesis processes such as the cell cycle and cell proliferation, differentiation, motility, and migration are included. This array contains the growth factors and cytokines related to neural stem cells as well as genes involved in synaptic functions, apoptosis, and cell adhesion. Cell signaling genes involved in neurogenesis are represented as well as genes involved in the regulation of transcription. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to neurogenesis and neural stem cells with this array.

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

Shipping and storage

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

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.

Array layout (96-well)

For 384-well 4 x 96 PCR arrays, genes are present in a staggered format. Refer to the *RT² Profiler PCR Array Handbook* for layout.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Ache	Adora1	Adora2a	Alk	Apbb1	Apoe	App	Artn	Ascl1	Bcl2	Bdnf	Bmp2
B	Bmp4	Bmp8b	Cdk5r1	Cdk5rap2	Chrm2	Creb1	Cxcl1	Dcx	Dlg4	Dll1	Drd2	Dvl3
C	Efnb1	Egf	Ep300	ErbB2	Fgf2	Flna	Gdnf	Gpi1	Grin1	Hdac4	Hes1	Hey1
D	Hey2	Heyl	Il3	Mdk	Mef2c	Mil1	Mtap2	Ndn	Ndp	Neurod1	Neurog1	Neurog2
E	Nf1	Nog	Notch1	Notch2	Nr2e3	Nrcam	Nrg1	Nrp1	Nrp2	Nf3	Ntn1	Odz1
F	Olig2	Pafah1b1	Pard3	Pax3	Pax5	Pax6	Pou3f3	Pou4f1	Ptn	Rac1	Robo1	Rtn4
G	S100a6	S100b	Shh	Slit2	Sod1	Sox2	Sox3	Stat3	Tgfb1	Th	Tnr	Vegfa
H	Actb	B2m	Gapdh	Gusb	Hsp90ab1	MGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Mm.255464	NM_009599	Ache	Acetylcholinesterase
A02	Mm.298908	NM_001008533	Adora1	Adenosine A1 receptor
A03	Mm.333734	NM_009630	Adora2a	Adenosine A2a receptor
A04	Mm.311854	NM_007439	Alk	Anaplastic lymphoma kinase
A05	Mm.38469	NM_009685	Apbb1	Amyloid beta (A4) precursor protein-binding, family B, member 1
A06	Mm.305152	NM_009696	Apoe	Apolipoprotein E
A07	Mm.277585	NM_007471	App	Amyloid beta (A4) precursor protein
A08	Mm.56897	NM_009711	Artn	Artemin
A09	Mm.136217	NM_008553	Ascl1	Achaete-scute complex homolog 1 (Drosophila)
A10	Mm.257460	NM_009741	Bcl2	B-cell leukemia/lymphoma 2
A11	Mm.1442	NM_007540	Bdnf	Brain derived neurotrophic factor
A12	Mm.103205	NM_007553	Bmp2	Bone morphogenetic protein 2
B01	Mm.6813	NM_007554	Bmp4	Bone morphogenetic protein 4
B02	Mm.439764	NM_007559	Bmp8b	Bone morphogenetic protein 8b
B03	Mm.142275	NM_009871	Cdk5r1	Cyclin-dependent kinase 5, regulatory subunit 1 (p35)
B04	Mm.379344	NM_145990	Cdk5rap2	CDK5 regulatory subunit associated protein 2
B05	Mm.448632	NM_203491	Chrm2	Cholinergic receptor, muscarinic 2, cardiac
B06	Mm.453295	NM_133828	Creb1	CAMP responsive element binding protein 1
B07	Mm.21013	NM_008176	Cxcl1	Chemokine (C-X-C motif) ligand 1
B08	Mm.12871	NM_010025	Dcx	Doublecortin
B09	Mm.27256	NM_007864	Dlg4	Discs, large homolog 4 (Drosophila)
B10	Mm.4875	NM_007865	Dll1	Delta-like 1 (Drosophila)
B11	Mm.41970	NM_010077	Drd2	Dopamine receptor D2
B12	Mm.247259	NM_007889	Dvl3	Dishevelled 3, dsh homolog (Drosophila)
C01	Mm.3374	NM_010110	Efnb1	Ephrin B1
C02	Mm.252481	NM_010113	Egf	Epidermal growth factor
C03	Mm.258397	NM_177821	Ep300	E1A binding protein p300
C04	Mm.290822	NM_001003817	ErbB2	V-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogene homolog (avian)
C05	Mm.473689	NM_008006	Fgf2	Fibroblast growth factor 2
C06	Mm.295533	NM_010227	Flna	Filamin, alpha
C07	Mm.4679	NM_010275	Gdnf	Glial cell line derived neurotrophic factor
C08	Mm.589	NM_008155	Gpi1	Glucose phosphate isomerase 1
C09	Mm.278672	NM_008169	Grin1	Glutamate receptor, ionotropic, NMDA1 (zeta 1)
C10	Mm.318567	NM_207225	Hdac4	Histone deacetylase 4
C11	Mm.390859	NM_008235	Hes1	Hairy and enhancer of split 1 (Drosophila)
C12	Mm.29581	NM_010423	Hey1	Hairy/enhancer-of-split related with YRPW motif 1
D01	Mm.103573	NM_013904	Hey2	Hairy/enhancer-of-split related with YRPW motif 2
D02	Mm.103615	NM_013905	Heyl	Hairy/enhancer-of-split related with YRPW motif-like
D03	Mm.983	NM_010556	Il3	Interleukin 3
D04	Mm.906	NM_010784	Mdk	Midkine
D05	Mm.24001	NM_025282	Mef2c	Myocyte enhancer factor 2C
D06	Mm.2389	NM_001081049	Mil1	Myeloid/lymphoid or mixed-lineage leukemia 1
D07	Mm.256966	NM_001039934	Mtap2	Microtubule-associated protein 2
D08	Mm.400253	NM_010882	Ndn	Necdin

Position	UniGene	GenBank	Symbol	Description
D09	Mm.5014	NM_010883	Ndp	Norrie disease (pseudoglioma) (human)
D10	Mm.4636	NM_010894	Neurod1	Neurogenic differentiation 1
D11	Mm.266665	NM_010896	Neurog1	Neurogenin 1
D12	Mm.42017	NM_009718	Neurog2	Neurogenin 2
E01	Mm.255596	NM_010897	Nf1	Neurofibromatosis 1
E02	Mm.135266	NM_008711	Nog	Noggin
E03	Mm.290610	NM_008714	Notch1	Notch gene homolog 1 (Drosophila)
E04	Mm.254017	NM_010928	Notch2	Notch gene homolog 2 (Drosophila)
E05	Mm.103641	NM_013708	Nr2e3	Nuclear receptor subfamily 2, group E, member 3
E06	Mm.208439	NM_176930	Nrcam	Neuron-glia-CAM-related cell adhesion molecule
E07	Mm.153432	NM_178591	Nrg1	Neuregulin 1
E08	Mm.271745	NM_008737	Nrp1	Neuropilin 1
E09	Mm.266341	NM_010939	Nrp2	Neuropilin 2
E10	Mm.267570	NM_008742	Ntf3	Neurotrophin 3
E11	Mm.39095	NM_008744	Ntn1	Netrin 1
E12	Mm.327698	NM_011855	Odz1	Odd Oz/ten-m homolog 1 (Drosophila)
F01	Mm.37289	NM_016967	Olig2	Oligodendrocyte transcription factor 2
F02	Mm.397111	NM_013625	Pafah1b1	Platelet-activating factor acetylhydrolase, isoform 1b, subunit 1
F03	Mm.299254	NM_033620	Pard3	Par-3 (partitioning defective 3) homolog (C. elegans)
F04	Mm.1371	NM_008781	Pax3	Paired box gene 3
F05	Mm.439659	NM_008782	Pax5	Paired box gene 5
F06	Mm.3608	NM_013627	Pax6	Paired box gene 6
F07	Mm.477577	NM_008900	Pou3f3	POU domain, class 3, transcription factor 3
F08	Mm.246550	NM_011143	Pou4f1	POU domain, class 4, transcription factor 1
F09	Mm.279690	NM_008973	Ptn	Pleiotrophin
F10	Mm.292510	NM_009007	Rac1	RAS-related C3 botulinum substrate 1
F11	Mm.310772	NM_019413	Robo1	Roundabout homolog 1 (Drosophila)
F12	Mm.192580	NM_194053	Rtn4	Reticulon 4
G01	Mm.100144	NM_011313	S100a6	S100 calcium binding protein A6 (calcyclin)
G02	Mm.235998	NM_009115	S100b	S100 protein, beta polypeptide, neural
G03	Mm.57202	NM_009170	Shh	Sonic hedgehog
G04	Mm.289739	NM_178804	Slit2	Slit homolog 2 (Drosophila)
G05	Mm.276325	NM_011434	Sod1	Superoxide dismutase 1, soluble
G06	Mm.65396	NM_011443	Sox2	SRY-box containing gene 2
G07	Mm.35784	NM_009237	Sox3	SRY-box containing gene 3
G08	Mm.249934	NM_011486	Stat3	Signal transducer and activator of transcription 3
G09	Mm.248380	NM_011577	Tgfb1	Transforming growth factor, beta 1
G10	Mm.1292	NM_009377	Th	Tyrosine hydroxylase
G11	Mm.44701	NM_022312	Tnr	Tenascin R
G12	Mm.282184	NM_009505	Vegfa	Vascular endothelial growth factor A
H01	Mm.328431	NM_007393	Actb	Actin, beta
H02	Mm.163	NM_009735	B2m	Beta-2 microglobulin
H03	Mm.343110	NM_008084	Gapdh	Glyceraldehyde-3-phosphate dehydrogenase
H04	Mm.3317	NM_010368	Gusb	Glucuronidase, beta
H05	Mm.2180	NM_008302	Hsp90ab1	Heat shock protein 90 alpha (cytosolic), class B member 1
H06	N/A	SA_00106	MGDC	Mouse Genomic DNA Contamination
H07	N/A	SA_00104	RTC	Reverse Transcription Control
H08	N/A	SA_00104	RTC	Reverse Transcription Control
H09	N/A	SA_00104	RTC	Reverse Transcription Control
H10	N/A	SA_00103	PPC	Positive PCR Control
H11	N/A	SA_00103	PPC	Positive PCR Control
H12	N/A	SA_00103	PPC	Positive PCR Control

Related products

For optimal performance, RT² Profiler PCR Arrays should be used together with the RT² First Strand Kit for cDNA synthesis and RT² SYBR[®] Green qPCR Mastermixes for PCR.

Product	Contents	Cat. no.
RT ² First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT ² SYBR Green qPCR Mastermix (2)*	For 2 x 96 assays in 96-well plates; suitable for use with real-time cyclers that do not require a reference dye, including: Bio-Rad models CFX96, CFX384, DNA Engine Opticon 2; Bio-Rad/MJ Research Chromo4; Roche LightCycler 480 (96-well and 384-well); all other cyclers	330500
RT ² SYBR Green ROX [™] qPCR Mastermix (2)*	For 2 x 96 assays in 96-well plates; suitable for use with the following real-time cyclers: Applied Biosystems models 5700, 7000, 7300, 7500 [Standard and FAST], 7700, 7900HT 96-well block [Standard and FAST] and 384-well block, StepOnePlus; Eppendorf Mastercycler ep realplex models 2, 2S, 4, 4S; Stratagene models Mx3000P, Mx3005P, Mx4000; Takara TP-800	330520
RT ² SYBR Green Fluor qPCR Mastermix (2)*	For 2 x 96 assays in 96-well plates; suitable for use with the following real-time cyclers: Bio-Rad models iCycler, iQ5, MyiQ, MyiQ2	330510

* Larger kit sizes available; please inquire.

RT² Profiler PCR Array products are intended for molecular biology applications. These products are not intended for the diagnosis, prevention, or treatment of a disease.

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