

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

Rat Neurotrophins & Receptors

Cat. no. 330231 PARN-031ZA

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 Rat Neurotrophin & Receptors RT² Profiler PCR Array profiles the expression of 84 genes related to neuronal processes. Neurotrophic signaling molecules are represented on this array including neurotrophins and neuropeptides along with their receptors. Genes involved in the normal functions of the neuronal system including neuronal cell growth and differentiation and neuronal regeneration and survival are included. The cytokines and receptors involved in neuronal signaling are contained on this array along with genes involved in the transmission of nerve impulses, genes involved in neuronal apoptosis in response to neurotrophic factors and transcription factors and regulators indicative of the activation pathways downstream of the neuronal system. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to the neuronal system 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	Adcyap1r1	Artn	Bax	Bcl2	Bdnf	Cbln1	Cckar	Cd40	Cntf	Cntfr	Crh	Crhbp
B	Crhr1	Crhr2	Cx3cr1	Cxcr4	Fas	Fgf2	Fgf9	Fgfr1	Fos	Frs2	Frs3	Fus
C	Galr1	Galr2	Gdnf	Gfra1	Gfra2	Gfra3	Gmfb	Gmfg	Grpr	HcRt	Hcrt1	Hcrt2
D	Hspb1	Il10	Il10ra	Il1b	Il1r1	Il6	Il6r	Il6st	Lif	Lifr	Maged1	Mc2r
E	Mt3	Myc	Nell1	Nf1	Ngf	Ngfr	Ngfrap1	Npffr2	Npy	Npy1r	Npy2r	Nr1i2
F	Nrg1	Nrg2	Ntf3	Ntf4	Ntrk1	Ntrk2	Ntsr1	Ppyr1	Pspn	Ptger2	Stat1	Stat2
G	Stat3	Stat4	Tacr1	Tfgr	Tgfa	Tgfb1	Tgfb1i1	Tp53	Ucn	Vgf	Zfp110	Zfp91
H	Actb	B2m	Hprt1	Ldha	Rplp1	RGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Rn.88408	NM_133511	Adcyap1r1	Adenylate cyclase activating polypeptide 1 receptor 1
A02	Rn.154711	NM_053397	Artn	Artemin
A03	Rn.10668	NM_017059	Bax	Bcl2-associated X protein
A04	Rn.9996	NM_016993	Bcl2	B-cell CLL/lymphoma 2
A05	Rn.11266	NM_012513	Bdnf	Brain-derived neurotrophic factor
A06	Rn.24402	NM_001109127	Cbln1	Cerebellin 1 precursor
A07	Rn.10184	NM_012688	Cckar	Cholecystokinin A receptor
A08	Rn.25180	NM_134360	Cd40	CD40 molecule, TNF receptor superfamily member 5
A09	Rn.6067	NM_013166	Cntf	Ciliary neurotrophic factor
A10	Rn.55036	NM_001003929	Cntfr	Ciliary neurotrophic factor receptor
A11	Rn.10349	NM_031019	Crh	Corticotropin releasing hormone
A12	Rn.34568	NM_139183	Crhbp	Corticotropin releasing hormone binding protein
B01	Rn.10499	NM_030999	Crhr1	Corticotropin releasing hormone receptor 1
B02	Rn.10023	NM_022714	Crhr2	Corticotropin releasing hormone receptor 2
B03	Rn.10482	NM_133534	Cx3cr1	Chemokine (C-X3-C motif) receptor 1
B04	Rn.44431	NM_022205	Cxcr4	Chemokine (C-X-C motif) receptor 4
B05	Rn.162521	NM_139194	Fas	Fas (TNF receptor superfamily, member 6)
B06	Rn.31808	NM_019305	Fgf2	Fibroblast growth factor 2
B07	Rn.25174	NM_012952	Fgf9	Fibroblast growth factor 9
B08	Rn.9797	NM_024146	Fgfr1	Fibroblast growth factor receptor 1
B09	Rn.103750	NM_022197	Fos	FBJ osteosarcoma oncogene
B10	Rn.22182	NM_001108097	Frs2	Fibroblast growth factor receptor substrate 2
B11	Rn.34398	NM_001017382	Frs3	Fibroblast growth factor receptor substrate 3
B12	Rn.100218	NM_001012137	Fus	Fusion (involved in t(12;16) in malignant liposarcoma) (human)
C01	Rn.10213	NM_012958	Galr1	Galanin receptor 1
C02	Rn.9789	NM_019172	Galr2	Galanin receptor 2
C03	Rn.53970	NM_019139	Gdnf	Glial cell derived neurotrophic factor
C04	Rn.88489	NM_012959	Gfra1	GDNF family receptor alpha 1
C05	Rn.90137	NM_012750	Gfra2	GDNF family receptor alpha 2
C06	Rn.15499	NM_053398	Gfra3	GDNF family receptor alpha 3
C07	Rn.10454	NM_031032	Gmfb	Glia maturation factor, beta
C08	Rn.15333	NM_181091	Gmfg	Glia maturation factor, gamma
C09	Rn.10316	NM_012706	Grpr	Gastrin releasing peptide receptor
C10	Rn.7628	NM_013179	HcRt	Hypocretin
C11	Rn.88262	NM_013064	Hcrt1	Hypocretin (orexin) receptor 1
C12	Rn.9893	NM_013074	Hcrt2	Hypocretin (orexin) receptor 2
D01	Rn.3841	NM_031970	Hspb1	Heat shock protein 1
D02	Rn.9868	NM_012854	Il10	Interleukin 10
D03	Rn.64632	NM_057193	Il10ra	Interleukin 10 receptor, alpha
D04	Rn.9869	NM_031512	Il1b	Interleukin 1 beta
D05	Rn.9758	NM_013123	Il1r1	Interleukin 1 receptor, type I
D06	Rn.9873	NM_012589	Il6	Interleukin 6
D07	Rn.1716	NM_017020	Il6r	Interleukin 6 receptor
D08	Rn.12138	NM_001008725	Il6st	Interleukin 6 signal transducer
D09	Rn.44379	NM_022196	Lif	Leukemia inhibitory factor

Position	UniGene	GenBank	Symbol	Description
D10	Rn.14529	NM_031048	Lifr	Leukemia inhibitory factor receptor alpha
D11	Rn.54596	NM_053409	Maged1	Melanoma antigen, family D, 1
D12	Rn.92460	NM_001100491	Mc2r	Melanocortin 2 receptor
E01	Rn.11325	NM_053968	Mt3	Metallothionein 3
E02	Rn.12072	NM_012603	Myc	Myelocytomatosis oncogene
E03	Rn.10695	NM_031069	Nell1	NEL-like 1 (chicken)
E04	Rn.10686	NM_012609	Nf1	Neurofibromin 1
E05	Rn.22168	XM_227525	Ngf	Nerve growth factor (beta polypeptide)
E06	Rn.10980	NM_012610	Ngfr	Nerve growth factor receptor (TNFR superfamily, member 16)
E07	Rn.3126	NM_053401	Ngfrap1	Nerve growth factor receptor (TNFRSF16) associated protein 1
E08	Rn.64524	NM_023980	Npffr2	Neuropeptide FF receptor 2
E09	Rn.9714	NM_012614	Npy	Neuropeptide Y
E10	Rn.11642	NM_001113357	Npy1r	Neuropeptide Y receptor Y1
E11	Rn.64505	NM_023968	Npy2r	Neuropeptide Y receptor Y2
E12	Rn.207164	NM_052980	Nr1i2	Nuclear receptor subfamily 1, group I, member 2
F01	Rn.37438	NM_031588	Nrg1	Neuregulin 1
F02	Rn.22434	NM_001136151	Nrg2	Neuregulin 2
F03	Rn.9715	NM_031073	Ntrf3	Neurotrophin 3
F04	Rn.44225	NM_013184	Ntrf4	Neurotrophin 4
F05	Rn.39098	NM_021589	Ntrk1	Neurotrophic tyrosine kinase, receptor, type 1
F06	Rn.11246	NM_012731	Ntrk2	Neurotrophic tyrosine kinase, receptor, type 2
F07	Rn.200149	NM_001108967	Ntsr1	Neurotensin receptor 1
F08	Rn.10574	NM_031581	Ppyr1	Pancreatic polypeptide receptor 1
F09	Rn.44349	NM_013014	Pspn	Persephin
F10	Rn.10264	NM_031088	Pger2	Prostaglandin E receptor 2 (subtype EP2)
F11	Rn.33229	NM_032612	Stat1	Signal transducer and activator of transcription 1
F12	Rn.24237	NM_001011905	Stat2	Signal transducer and activator of transcription 2
G01	Rn.10247	NM_012747	Stat3	Signal transducer and activator of transcription 3
G02	Rn.137580	NM_001012226	Stat4	Signal transducer and activator of transcription 4
G03	Rn.89609	NM_012667	Tacr1	Tachykinin receptor 1
G04	Rn.24822	NM_001012144	Tfg	Trk-fused gene
G05	Rn.9952	NM_012671	Tgfa	Transforming growth factor alpha
G06	Rn.40136	NM_021578	Tgfb1	Transforming growth factor, beta 1
G07	Rn.103260	XM_341934	Tgfb1i1	Transforming growth factor beta 1 induced transcript 1
G08	Rn.54443	NM_030989	Tp53	Tumor protein p53
G09	Rn.10190	NM_019150	Ucn	Urocortin
G10	Rn.9704	NM_030997	Vgf	VGF nerve growth factor inducible
G11	Rn.204252	NM_001024775	Zfp110	Zinc finger protein 110
G12	Rn.1772	NM_001169120	Zfp91	Zinc finger protein 91
H01	Rn.94978	NM_031144	Actb	Actin, beta
H02	Rn.1868	NM_012512	B2m	Beta-2 microglobulin
H03	Rn.47	NM_012583	Hprt1	Hypoxanthine phosphoribosyltransferase 1
H04	Rn.107896	NM_017025	Ldha	Lactate dehydrogenase A
H05	Rn.973	NM_001007604	Rplp1	Ribosomal protein, large, P1
H06	N/A	U26919	RGDC	Rat 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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