RT² Profiler PCR Array (Rotor-Gene® Format)

Rat Neurotransmitter Receptors

Cat. no. 330231 PARN-060ZR

For pathway expression analysis

Format	For use with the following real-time cyclers
RT² Profiler PCR Array, Format R	Rotor-Gene Q, other Rotor-Gene cyclers

Description

The Rat Neurotransmitter Receptors RT² Profiler PCR Array profiles the expression of 84 genes involved in modulating the biological processes of neurotransmitter biosynthesis, uptake, transport and signaling through neurotransmitter receptors. This array contains receptors for specific neurotransmitters, such as acetylcholine, benzodiazepine, dopamine, gamma-aminobutyric acid (GABA), glutamate, serotonin, somatostatin and neuropeptides. Genes involved in the regulation of neurotransmitter levels are included as well. 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 the Rotor-Gene format 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.

Array layout

The 96 real-time assays in the Rotor-Gene format are located in wells 1–96 of the Rotor-Disc™ (plate A1–A12=Rotor-Disc 1–12, plate B1–B12=Rotor-Disc 13–24, etc.). To maintain data analysis compatibility, wells 97–100 do not contain real-time assays but will contain master mix to account for weight balance.

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Rn.9991	NM_017191	Adra1a	Adrenergic, alpha-1A-, receptor
A02	Rn.11314	NM_024483	Adra1d	Adrenergic, alpha-1D-, receptor
A03	Rn.170171	NM_012739	Adra2a	Adrenergic, alpha-2A-, receptor
A04	Rn.10206	NM_012492	Adrb2	Adrenergic, beta-2-, receptor, surface
A05	Rn.10100	NM_013108	Adrb3	Adrenergic, beta-3-, receptor
A06	Rn.32282	NM_053019	Avpr1a	Arginine vasopressin receptor 1A
A07	Rn.10096	NM_017205	Avpr1b	Arginine vasopressin receptor 1B
A08	Rn.86415	NM_152845	Brs3	Bombesin-like receptor 3
A09	Rn.90997	NM_013165	Cckbr	Cholecystokinin B receptor
A10	Rn.119395	NM_080773	Chrm1	Cholinergic receptor, muscarinic 1
A11	Rn.10676	NM_031547	Chrm4	Cholinergic receptor, muscarinic 4
A12	Rn.44293	NM_017362	Chrm5	Cholinergic receptor, muscarinic 5
B01	Rn.10996	NM_052805	Chrna3	Cholinergic receptor, nicotinic, alpha 3
B02	Rn.9697	NM_024354	Chrna4	Cholinergic receptor, nicotinic, alpha 4
B03	Rn.40125	NM_017078	Chrna5	Cholinergic receptor, nicotinic, alpha 5
B04	Rn.9696	NM_057184	Chrna6	Cholinergic receptor, nicotinic, alpha 6
B05	Rn.9698	NM_012832	Chrna7	Cholinergic receptor, nicotinic, alpha 7
B06	Rn.10301	NM_017194	Chrne	Cholinergic receptor, nicotinic, epsilon
B07	Rn.89774	NM_012784	Cnr1	Cannabinoid receptor 1 (brain)
B08	Rn.24039	NM_012546	Drd1a	Dopamine receptor D1A
B09	Rn.87299	NM_012547	Drd2	Dopamine receptor D2
B10	Rn.138110	NM_012768	Drd5	Dopamine receptor D5
B11	Rn.30059	NM_031028	Gabbr1	Gamma-aminobutyric acid (GABA) B receptor 1
B12	Rn.162814	NM_031802	Gabbr2	Gamma-aminobutyric acid (GABA) B receptor 2
C01	Rn.28463	NM_183326	Gabra1	Gamma-aminobutyric acid (GABA) A receptor, alpha 1
C02	Rn.48180	NM_001135779	Gabra2	Gamma-aminobutyric acid (GABA-A) receptor, subunit alpha 2
C03	Rn.81205	NM_080587	Gabra4	Gamma-aminobutyric acid (GABA) A receptor, alpha 4
C04	Rn.10368	NM_017295	Gabra5	Gamma-aminobutyric acid (GABA) A receptor, alpha 5
C05	Rn.211981	NM_021841	Gabra6	Gamma-aminobutyric acid (GABA) A receptor, alpha 6
C06	Rn.207157	NM_012956	Gabrb1	Gamma-aminobutyric acid (GABA) A receptor, beta 1
C07	Rn.208980	NM_017065	Gabrb3	Gamma-aminobutyric acid (GABA) A receptor, beta 3
C08	Rn.10927	NM_017289	Gabrd	Gamma-aminobutyric acid (GABA) A receptor, delta
C09	Rn.54455	NM_023091	Gabre	Gamma-aminobutyric acid (GABA) A receptor, epsilon
C10	Rn.10366	NM_080586	Gabrg1	Gamma-aminobutyric acid (GABA) A receptor, gamma 1
C11	Rn.159942	NM_183327	Gabrg2	Gamma-aminobutyric acid (GABA) A receptor, gamma 2
C12	Rn.10369	NM_024370	Gabrg3	Gamma-aminobutyric acid (GABA) A receptor, gamma 3
D01	Rn.81067	NM_031733	Gabrq	Gamma-aminobutyric acid (GABA) receptor, theta
D02	Rn.33552	NM_017291	Gabrr1	Gamma-aminobutyric acid (GABA) receptor, rho 1
D03	Rn.48659	NM_017292	Gabrr2	Gamma-aminobutyric acid (GABA) receptor, rho 2
D04	Rn.11225	NM_172092	Gcgr	Glucagon receptor
D05	Rn.29971	NM_031608	Gria1	Glutamate receptor, ionotropic, AMPA 1
D06	Rn.91361	NM_017261	Gria2	Glutamate receptor, ionotropic, AMPA 2
D07	Rn.74049	NM_032990	Gria3	Glutamate receptor, ionotrophic, AMPA 3
D08	Rn.10449	NM_017241	Grik1	Glutamate receptor, ionotropic, kainate 1
D09	Rn.87696	NM_019309	Grik2	Glutamate receptor, ionotropic, kainate 2
D10	Rn.10049	NM_012572	Grik4	Glutamate receptor, ionotropic, kainate 4
D11	Rn.74042	NM_031508	Grik5	Glutamate receptor, ionotropic, kainate 5
D12	Rn.9840	NM_017010	Grin1	Glutamate receptor, ionotropic, N-methyl D-aspartate 1
E01	Rn.9710	NM_012573	Grin2a	Glutamate receptor, ionotropic, N-methyl D-aspartate 2A
E02	Rn.9711	NM_012574	Grin2b	Glutamate receptor, ionotropic, N-methyl D-aspartate 2B
E03	Rn.9709	NM_012575	Grin2c	Glutamate receptor, ionotropic, N-methyl D-aspartate 2C
E04	Rn.87787	NM_017011	Grm1	Glutamate receptor, metabotropic 1
E05	Rn.41715	NM_001105712	Grm3	Glutamate receptor, metabotropic 3
E06	Rn.89046	NM_022666	Grm4	Glutamate receptor, metabotropic 4
E07	Rn.29972	NM_017012	Grm5	Glutamate receptor, metabotropic 5
E08	Rn.44615	NM_022920	Grm6	Glutamate receptor, metabotropic 6
E09	Rn.10409	NM_031040	Grm7	Glutamate receptor, metabotropic 7

Position	UniGene	GenBank	Symbol	Description
E10	Rn.44420	NM_022202	Grm8	Glutamate receptor, metabotropic 8
E11	Rn.10316	NM_012706	Grpr	Gastrin releasing peptide receptor
E12	Rn.9893	NM_013074	Hcrtr2	Hypocretin (orexin) receptor 2
F01	Rn.81032	NM_017018	Hrh1	Histamine receptor H 1
F02	Rn.162272	NM_131909	Hrh4	Histamine receptor H4
F03	Rn.44486	NM_012585	Htr1a	5-hydroxytryptamine (serotonin) receptor 1A
F04	Rn.138109	NM_022225	Htr1b	5-hydroxytryptamine (serotonin) receptor 1B
F05	Rn.34834	NM_012852	Htr1d	5-Hydroxytryptamine (serotonin) receptor 1D
F06	Rn.44301	NM_021857	Htr1f	5-hydroxytryptamine (serotonin) receptor 1F
F07	Rn.10294	NM_017254	Htr2a	5-hydroxytryptamine (serotonin) receptor 2A
F08	Rn.9935	NM_012765	Htr2c	5-hydroxytryptamine (serotonin) receptor 2C
F09	Rn.55109	NM_024394	Htr3a	5-hydroxytryptamine (serotonin) receptor 3a
F10	Rn.10094	NM_012853	Htr4	5-hydroxytryptamine (serotonin) receptor 4
F11	Rn.87132	NM_022938	Htr7	5-hydroxytryptamine (serotonin) receptor 7
F12	Rn.64505	NM_023968	Npy2r	Neuropeptide Y receptor Y2
G01	Rn.10532	NM_012869	Npy5r	Neuropeptide Y receptor Y5
G02	Rn.127792	NM_022695	Ntsr2	Neurotensin receptor 2
G03	Rn.6841	NM_012871	Oxtr	Oxytocin receptor
G04	Rn.82760	NM_138978	Prokr2	Prokineticin receptor 2
G05	Rn.32256	NM_031115	Sctr	Secretin receptor
G06	Rn.42915	NM_012719	Sstr1	Somatostatin receptor 1
G07	Rn.9929	NM_019348	Sstr2	Somatostatin receptor 2
G08	Rn.9936	NM_013036	Sstr4	Somatostatin receptor 4
G09	Rn.89609	NM_012667	Tacr1	Tachykinin receptor 1
G10	Rn.202846	NM_080768	Tacr2	Tachykinin receptor 2
G11	Rn.9702	NM_017053	Tacr3	Tachykinin receptor 3
G12	Rn.1820	NM_012515	Tspo	Translocator protein
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.
RT² First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT² SYBR Green ROX™ FAST Mastermix (2)*	For 2 x 96 assays in 96-well plates; suitable for use with the Rotor-Gene Q and other Rotor-Gene cyclers	330620

* 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.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor.

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