

# RT<sup>2</sup> Profiler PCR Array (Rotor-Gene<sup>®</sup> Format)

## Mouse Neurotransmitter Receptors

Cat. no. 330231 PAMM-060ZR

For pathway expression analysis

Format	For use with the following real-time cyclers
RT <sup>2</sup> Profiler PCR Array, Format R	Rotor-Gene Q, other Rotor-Gene cyclers

### Description

The Mouse Neurotransmitter Receptors RT<sup>2</sup> 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 *RT<sup>2</sup> Profiler PCR Array Handbook*.

### Shipping and storage

RT<sup>2</sup> 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 RT<sup>2</sup> 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: RT<sup>2</sup> Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Mm.57064	NM_013461	Adra1a	Adrenergic receptor, alpha 1a
A02	Mm.389380	NM_013460	Adra1d	Adrenergic receptor, alpha 1d
A03	Mm.235195	NM_007417	Adra2a	Adrenergic receptor, alpha 2a
A04	Mm.5598	NM_007420	Adrb2	Adrenergic receptor, beta 2
A05	Mm.278475	NM_013462	Adrb3	Adrenergic receptor, beta 3
A06	Mm.4351	NM_016847	Avpr1a	Arginine vasopressin receptor 1A
A07	Mm.89986	NM_011924	Avpr1b	Arginine vasopressin receptor 1B
A08	Mm.10687	NM_009766	Brs3	Bombesin-like receptor 3
A09	Mm.44513	NM_007627	Cckbr	Cholecystokinin B receptor
A10	Mm.240607	NM_007698	Chrm1	Cholinergic receptor, muscarinic 1, CNS
A11	Mm.330405	NM_007699	Chrm4	Cholinergic receptor, muscarinic 4
A12	Mm.297624	NM_205783	Chrm5	Cholinergic receptor, muscarinic 5
B01	Mm.63569	NM_145129	Chrna3	Cholinergic receptor, nicotinic, alpha polypeptide 3
B02	Mm.252369	NM_015730	Chrna4	Cholinergic receptor, nicotinic, alpha polypeptide 4
B03	Mm.103778	NM_176844	Chrna5	Cholinergic receptor, nicotinic, alpha polypeptide 5
B04	Mm.283137	NM_021369	Chrna6	Cholinergic receptor, nicotinic, alpha polypeptide 6
B05	Mm.113464	NM_007390	Chrna7	Cholinergic receptor, nicotinic, alpha polypeptide 7
B06	Mm.4980	NM_009603	Chrne	Cholinergic receptor, nicotinic, epsilon polypeptide
B07	Mm.7992	NM_007726	Cnr1	Cannabinoid receptor 1 (brain)
B08	Mm.54161	NM_010076	Drd1a	Dopamine receptor D1A
B09	Mm.41970	NM_010077	Drd2	Dopamine receptor D2
B10	Mm.167154	NM_013503	Drd5	Dopamine receptor D5
B11	Mm.32191	NM_019439	Gabbr1	Gamma-aminobutyric acid (GABA) B receptor, 1
B12	Mm.101909	NM_001081141	Gabbr2	Gamma-aminobutyric acid (GABA) B receptor, 2
C01	Mm.439668	NM_010250	Gabra1	Gamma-aminobutyric acid (GABA) A receptor, subunit alpha 1
C02	Mm.5304	NM_008066	Gabra2	Gamma-aminobutyric acid (GABA) A receptor, subunit alpha 2
C03	Mm.248731	NM_010251	Gabra4	Gamma-aminobutyric acid (GABA) A receptor, subunit alpha 4
C04	Mm.273114	NM_176942	Gabra5	Gamma-aminobutyric acid (GABA) A receptor, subunit alpha 5
C05	Mm.4915	NM_008068	Gabra6	Gamma-aminobutyric acid (GABA) A receptor, subunit alpha 6
C06	Mm.38567	NM_008069	Gabrb1	Gamma-aminobutyric acid (GABA) A receptor, subunit beta 1
C07	Mm.8004	NM_008071	Gabrb3	Gamma-aminobutyric acid (GABA) A receptor, subunit beta 3
C08	Mm.388925	NM_008072	Gabrd	Gamma-aminobutyric acid (GABA) A receptor, subunit delta
C09	Mm.391288	NM_017369	Gabre	Gamma-aminobutyric acid (GABA) A receptor, subunit epsilon
C10	Mm.255292	NM_010252	Gabrg1	Gamma-aminobutyric acid (GABA) A receptor, subunit gamma 1
C11	Mm.5309	NM_008073	Gabrg2	Gamma-aminobutyric acid (GABA) A receptor, subunit gamma 2
C12	Mm.378920	NM_008074	Gabrg3	Gamma-aminobutyric acid (GABA) A receptor, subunit gamma 3
D01	Mm.117125	NM_020488	Gabrq	Gamma-aminobutyric acid (GABA) A receptor, subunit theta
D02	Mm.14116	NM_008075	Gabbr1	Gamma-aminobutyric acid (GABA) C receptor, subunit rho 1
D03	Mm.6227	NM_008076	Gabbr2	Gamma-aminobutyric acid (GABA) C receptor, subunit rho 2
D04	Mm.22329	NM_008101	Gcgr	Glucagon receptor
D05	Mm.4920	NM_008165	Gria1	Glutamate receptor, ionotropic, AMPA1 (alpha 1)
D06	Mm.220224	NM_013540	Gria2	Glutamate receptor, ionotropic, AMPA2 (alpha 2)
D07	Mm.327681	NM_016886	Gria3	Glutamate receptor, ionotropic, AMPA3 (alpha 3)
D08	Mm.5134	NM_146072	Grik1	Glutamate receptor, ionotropic, kainate 1
D09	Mm.332838	NM_010349	Grik2	Glutamate receptor, ionotropic, kainate 2 (beta 2)
D10	Mm.370291	NM_175481	Grik4	Glutamate receptor, ionotropic, kainate 4
D11	Mm.2879	NM_008168	Grik5	Glutamate receptor, ionotropic, kainate 5 (gamma 2)
D12	Mm.278672	NM_008169	Grin1	Glutamate receptor, ionotropic, NMDA1 (zeta 1)
E01	Mm.2953	NM_008170	Grin2a	Glutamate receptor, ionotropic, NMDA2A (epsilon 1)
E02	Mm.436649	NM_008171	Grin2b	Glutamate receptor, ionotropic, NMDA2B (epsilon 2)
E03	Mm.39090	NM_010350	Grin2c	Glutamate receptor, ionotropic, NMDA2C (epsilon 3)
E04	Mm.391904	NM_016976	Grm1	Glutamate receptor, metabotropic 1
E05	Mm.318966	NM_181850	Grm3	Glutamate receptor, metabotropic 3
E06	Mm.358940	NM_001013385	Grm4	Glutamate receptor, metabotropic 4
E07	Mm.235018	NM_001081414	Grm5	Glutamate receptor, metabotropic 5
E08	Mm.134265	NM_173372	Grm6	Glutamate receptor, metabotropic 6
E09	Mm.240881	NM_177328	Grm7	Glutamate receptor, metabotropic 7

Position	UniGene	GenBank	Symbol	Description
E10	Mm.320732	NM_008174	Grm8	Glutamate receptor, metabotropic 8
E11	Mm.4687	NM_008177	Grpr	Gastrin releasing peptide receptor
E12	Mm.335300	NM_198962	Hcrr2	Hypocretin (orexin) receptor 2
F01	Mm.333327	NM_008285	Hrh1	Histamine receptor H1
F02	Mm.207073	NM_153087	Hrh4	Histamine receptor H4
F03	Mm.4716	NM_008308	Htr1a	5-hydroxytryptamine (serotonin) receptor 1A
F04	Mm.445308	NM_010482	Htr1b	5-hydroxytryptamine (serotonin) receptor 1B
F05	Mm.40573	NM_008309	Htr1d	5-hydroxytryptamine (serotonin) receptor 1D
F06	Mm.5040	NM_008310	Htr1f	5-hydroxytryptamine (serotonin) receptor 1F
F07	Mm.214351	NM_172812	Htr2a	5-hydroxytryptamine (serotonin) receptor 2A
F08	Mm.439747	NM_008311	Htr2b	5-hydroxytryptamine (serotonin) receptor 2B
F09	Mm.439670	NM_008312	Htr2c	5-hydroxytryptamine (serotonin) receptor 2C
F10	Mm.4831	NM_013561	Htr3a	5-hydroxytryptamine (serotonin) receptor 3A
F11	Mm.20440	NM_008313	Htr4	5 hydroxytryptamine (serotonin) receptor 4
F12	Mm.254266	NM_008315	Htr7	5-hydroxytryptamine (serotonin) receptor 7
G01	Mm.1433	NM_008731	Npy2r	Neuropeptide Y receptor Y2
G02	Mm.10685	NM_016708	Npy5r	Neuropeptide Y receptor Y5
G03	Mm.281715	NM_008747	Ntsr2	Neurotensin receptor 2
G04	Mm.333310	NM_001081147	Oxtr	Oxytocin receptor
G05	Mm.283777	NM_144944	Prokr2	Prokineticin receptor 2
G06	Mm.278336	NM_009216	Sstr1	Somatostatin receptor 1
G07	Mm.454968	NM_009217	Sstr2	Somatostatin receptor 2
G08	Mm.35324	NM_009219	Sstr4	Somatostatin receptor 4
G09	Mm.8055	NM_009313	Tacr1	Tachykinin receptor 1
G10	Mm.8054	NM_009314	Tacr2	Tachykinin receptor 2
G11	Mm.103810	NM_021382	Tacr3	Tachykinin receptor 3
G12	Mm.1508	NM_009775	Tspo	Translocator protein
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, RT<sup>2</sup> Profiler PCR Arrays should be used together with the RT<sup>2</sup> First Strand Kit for cDNA synthesis and RT<sup>2</sup> SYBR<sup>®</sup> Green qPCR Mastermixes for PCR.

Product	Contents	Cat. no.
RT <sup>2</sup> First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT <sup>2</sup> SYBR Green ROX <sup>™</sup> 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.

RT<sup>2</sup> 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](http://www.qiagen.com) or can be requested from QIAGEN Technical Services or your local distributor.

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