RT² Profiler PCR Array (Rotor-Gene® Format)

Mouse Parkinson's Disease

Cat. no. 330231 PAMM-124ZR

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 Mouse Parkinson's Disease RT² Profiler™ PCR Array profiles the expression of 84 key genes directly or potentially involved in Parkinson's disease (PD). PD is a neurodegenerative disorder caused by loss of dopaminergic neurons. Although there are inheritable genetic forms of PD, the majority of diagnoses are sporadic PD, where the cause is unknown. Gene expression microarray analyses of multiple PD animal models have shed insight into the mechanism of PD initiation and progression. For example, one microarray study shows that genes of the PARK family, central to inheritable PD, are also dysregulated in patients diagnosed with sporadic PD. In addition, this study identifies dysregulated genes involved in ion transport, such as ATP2B2. Therefore, PD research focuses on both known mutated genes, such as Alpha-synuclein (SNCA) and Parkin (PARK2), as well as novel genes identified from microarray experiments. This array includes known PD genes and their interactors, as well as genes whose expression changes across multiple human, mouse, rat and macaque PD microarray analyses. These genes mediate multiple cellular functions dysregulated in PD, such as ubiquitination, ion transport, apoptosis and dopaminergic signaling. Using real-time PCR, you can easily and reliably analyze the expression of a focused panel of genes involved in Parkinson's disease progression with this array.

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

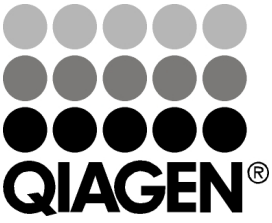
Shipping and storage

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	Mm.250866	NM_013467	Aldh1a1	Aldehyde dehydrogenase family 1, subfamily A1
A02	Mm.384171	NM_007462	Apc	Adenomatosis polyposis coli
A03	Mm.277585	NM_007471	App	Amyloid beta (A4) precursor protein
A04	Mm.321755	NM_009723	Atp2b2	ATPase, Ca++ transporting, plasma membrane 2
A05	Mm.260900	NM_009125	Atxn2	Ataxin 2
A06	Mm.485508	NM_029705	Atxn3	Ataxin 3
A07	Mm.29586	NM_027395	Basp1	Brain abundant, membrane attached signal protein 1
A08	Mm.1442	NM_007540	Bdnf	Brain derived neurotrophic factor
A09	Mm.260881	NM_012061	Cadps	Ca2+-dependent secretion activator
A10	Mm.1051	NM_009807	Casp1	Caspase 1
A11	Mm.34405	NM_009810	Casp3	Caspase 3
A12	Mm.35687	NM_007611	Casp7	Caspase 7
B01	Mm.336851	NM_009812	Casp8	Caspase 8
B02	Mm.88829	NM_015733	Casp9	Caspase 9
B03	Mm.89845	NM_145436	Cdc27	Cell division cycle 27 homolog (S. cerevisiae)
B04	Mm.1022	NM_009861	Cdc42	Cell division cycle 42 homolog (S. cerevisiae)
B05	Mm.441131	NM_007667	Cdh8	Cadherin 8
B06	Mm.255241	NM_007694	Chgb	Chromogranin B
B07	Mm.291707	NM_029402	Cul2	Cullin 2
B08	Mm.17537	NM_028868	Cxxc1	CXXC finger 1 (PHD domain)
B09	Mm.12906	NM_016672	Ddc	Dopa decarboxylase
B10	Mm.157069	NM_010052	Dlk1	Delta-like 1 homolog (Drosophila)
B11	Mm.41970	NM_010077	Drd2	Dopamine receptor D2
B12	Mm.140619	NM_053207	Egln1	EGL nine homolog 1 (C. elegans)
C01	Mm.28584	NM_023605	Fbxo9	F-box protein 9
C02	Mm.7995	NM_010200	Fgf13	Fibroblast growth factor 13
C03	Mm.193099	NM_010233	Fn1	Fibronectin 1
C04	Mm.101909	NM_001081141	Gabbr2	Gamma-aminobutyric acid (GABA) B receptor, 2
C05	Mm.396102	NM_028803	Gbe1	Glucan (1,4-alpha-), branching enzyme 1
C06	Mm.409670	NM_010338	Gpr37	G protein-coupled receptor 37
C07	Mm.327681	NM_016886	Gria3	Glutamate receptor, ionotropic, AMPA3 (alpha 3)
C08	Mm.239865	NM_008300	Hspa4	Heat shock protein 4
C09	Mm.214351	NM_172812	Htr2a	5-hydroxytryptamine (serotonin) receptor 2A
C10	Mm.328720	NM_010606	Kcnj6	Potassium inwardly-rectifying channel, subfamily J, member 6
C11	Mm.37558	NM_025730	Lrrk2	Leucine-rich repeat kinase 2
C12	Mm.68933	NM_016961	Mapk9	Mitogen-activated protein kinase 9
D01	Mm.1287	NM_010838	Mapt	Microtubule-associated protein tau
D02	Mm.301039	NM_010881	Ncoa1	Nuclear receptor coactivator 1
D03	Mm.1956	NM_010910	Nefl	Neurofilament, light polypeptide
D04	Mm.326702	NM_182716	Nfasc	Neurofascin
D05	Mm.3507	NM_013613	Nr4a2	Nuclear receptor subfamily 4, group A, member 2
D06	Mm.425766	NM_172544	Nrxn3	Neurexin III
D07	Mm.260117	NM_008740	Nsf	N-ethylmaleimide sensitive fusion protein
D08	Mm.7414	NM_010942	Nsg1	Neuron specific gene family member 1
D09	Mm.130054	NM_008745	Ntrk2	Neurotrophic tyrosine kinase, receptor, type 2
D10	Mm.274285	NM_133752	Opa1	Optic atrophy 1 homolog (human)
D11	Mm.244183	NM_133992	Pan2	PAN2 polyA specific ribonuclease subunit homolog (S. cerevisiae)
D12	Mm.311110	NM_016694	Park2	Parkinson disease (autosomal recessive, juvenile) 2, parkin
E01	Mm.277349	NM_020569	Park7	Parkinson disease (autosomal recessive, early onset) 7
E02	Mm.18539	NM_026880	Pink1	PTEN induced putative kinase 1
E03	Mm.295252	NM_026352	Ppid	Peptidylprolyl isomerase D (cyclophilin D)
E04	Mm.347009	NM_011563	Prdx2	Peroxiredoxin 2
E05	Mm.330850	NM_011183	Psen2	Presenilin 2
E06	Mm.245395	NM_008960	Pten	Phosphatase and tensin homolog
E07	Mm.41642	NM_009062	Rgs4	Regulator of G-protein signaling 4
E08	Mm.221275	NM_153457	Rtn1	Reticulon 1
E09	Mm.235998	NM_009115	S100b	S100 protein, beta polypeptide, neural

Position	UniGene	GenBank	Symbol	Description
E10	Mm.20365	NM_213614	Sept5	Septin 5
E11	Mm.42944	NM_011543	Skp1a	S-phase kinase-associated protein 1A
E12	Mm.353923	NM_172523	Slc18a2	Solute carrier family 18 (vesicular monoamine), member 2
F01	Mm.16228	NM_007450	Slc25a4	Solute carrier family 25 (mitochondrial carrier, adenine nucleotide translocator), member 4
F02	Mm.41993	NM_010020	Slc6a3	Solute carrier family 6 (neurotransmitter transporter, dopamine), member 3
F03	Mm.40322	NM_015748	Slit1	Slit homolog 1 (Drosophila)
F04	Mm.17484	NM_009221	Snca	Synuclein, alpha
F05	Mm.299906	NM_019763	Spen	SPEN homolog, transcriptional regulator (Drosophila)
F06	Mm.292016	NM_146083	Srsf7	Serine/arginine-rich splicing factor 7
F07	Mm.277599	NM_019719	Stub1	STIP1 homology and U-Box containing protein 1
F08	Mm.273082	NM_153579	Sv2b	Synaptic vesicle glycoprotein 2 b
F09	Mm.26032	NM_011522	Syngr3	Synaptogyrin 3
F10	Mm.289702	NM_009306	Syt1	Synaptotagmin I
F11	Mm.379376	NM_018804	Syt11	Synaptotagmin XI
F12	Mm.139815	NM_009333	Tcf7l2	Transcription factor 7-like 2, T-cell specific, HMG-box
G01	Mm.1292	NM_009377	Th	Tyrosine hydroxylase
G02	Mm.20864	NM_011627	Tpbg	Trophoblast glycoprotein
G03	Mm.1104	NM_009457	Uba1	Ubiquitin-like modifier activating enzyme 1
G04	Mm.331	NM_019639	Ubc	Ubiquitin C
G05	Mm.240044	NM_011665	Ube2i	Ubiquitin-conjugating enzyme E2I
G06	Mm.319512	NM_016786	Ube2k	Ubiquitin-conjugating enzyme E2K (UBC1 homolog, yeast)
G07	Mm.3074	NM_009456	Ube2l3	Ubiquitin-conjugating enzyme E2L 3
G08	Mm.29807	NM_011670	Uchl1	Ubiquitin carboxy-terminal hydrolase L1
G09	Mm.119155	NM_001190401	Usp34	Ubiquitin specific peptidase 34
G10	Mm.32321	NM_009496	Vamp1	Vesicle-associated membrane protein 1
G11	Mm.227704	NM_011696	Vdac3	Voltage-dependent anion channel 3
G12	Mm.3360	NM_011740	Ywhaz	Tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta polypeptide
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.
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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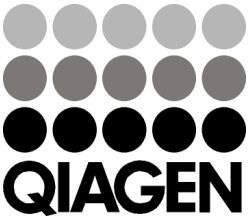

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