# RT<sup>2</sup> Profiler PCR Array (Rotor-Gene® Format) Mouse Alzheimer's Disease

Cat. no. 330231 PAMM-057ZR

#### For pathway expression analysis

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

#### **Description**

The Mouse Alzheimer's Disease RT² Profiler™ PCR Array profiles the expression of 84 genes important in the onset, development, and progression of Alzheimer's disease. The array includes genes that contribute to amyloid beta-peptide (AB) generation, clearance, and degradation, as well as genes involved in amyloid beta-peptide (AB) signal transduction leading to neuronal toxicity and inflammation. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to Alzheimer's Disease 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<sup>™</sup> (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.30151	NM_175628	A2m	Alpha-2-macroglobulin	
A02	Mm.277376	NM_013454	Abca1	ATP-binding cassette, sub-family A (ABC1), member 1	
A03	Mm.255464	NM_009599	Ache	Acetylcholinesterase	
A04	Mm.28908	NM_007404	Adam9	A disintegrin and metallopeptidase domain 9 (meltrin gamma)	
A05	Mm.22879	NM_177034	Apba1	Amyloid beta (A4) precursor protein binding, family A, member 1	
A06	Mm.293931	NM_018758	Apba3	Amyloid beta (A4) precursor protein-binding, family A, member 3	
A07	Mm.38469	NM 009685	Apbb1	Amyloid beta (A4) precursor protein-binding, family B, member 1	
A08	Mm.5159	NM 009686	Apbb2	Amyloid beta (A4) precursor protein-binding, family B, member 2	
A09	Mm.359706	NM 146104	Aph1a	Anterior pharynx defective 1a homolog (C. elegans)	
A10	Mm.2381	NM 007467	Aplp1	Amyloid beta (A4) precursor-like protein 1	
A11	Mm.19133	NM 009691	Aplp2	Amyloid beta (A4) precursor-like protein 2	
A12	Mm.26743	NM 009692	Apoq1	Apolipoprotein A-I	
B01	Mm.305152	NM 009696	Apoe	Apolipoprotein E	
B02	Mm.277585	NM 007471	Арр	Amyloid beta (A4) precursor protein	
B03	Mm.24044	NM 011792	Bace 1	Beta-site APP cleaving enzyme 1	
B04	Mm.97885	NM 019517	Bace2	Beta-site APP-cleaving enzyme 2	
B05	Mm.250719	NM 009738	Bche	Butyrylcholinesterase	
B05	Mm.1442	NM 007540	Bdnf	Brain derived neurotrophic factor	
B07	Mm.1442 Mm.34405	NM 009810	Casp3	Caspase 3	
B07	Mm.34405 Mm.1569	NM 007609	Casp3	Caspase 3 Caspase 4, apoptosis-related cysteine peptidase	
B08 B09	Mm.1569 Mm.281367	NM_007609 NM_007659	Casp4 Cdk1	, , , , , , , , , , , , , , , , , , , ,	
				Cyclin-dependent kinase 1	
B10	Mm.298798	NM_007668	Cdk5	Cyclin-dependent kinase 5	
B11	Mm.132325	NM_183294	Cdkl1	Cyclin-dependent kinase-like 1 (CDC2-related kinase)	
B12	Mm.442817	NM_009891	Chat	Choline acetyltransferase	
C01	Mm.200608	NM_013492	Clu	Clusterin	
C02	Mm.236553	NM_007798	Ctsb	Cathepsin B	
C03	Mm.322945	NM_009982	Ctsc	Cathepsin C	
C04	Mm.231395	NM_009983	Ctsd	Cathepsin D	
C05	Mm.4858	NM_007800	Ctsg	Cathepsin G	
C06	Mm.930	NM_009984	Ctsl	Cathepsin L	
C07	Mm.258397	NM_177821	Ep300	E1A binding protein p300	
C08	Mm.340943	NM_023913	Ern 1	Endoplasmic reticulum (ER) to nucleus signalling 1	
C09	Mm.1222	NM_008083	Gap43	Growth associated protein 43	
C10	Mm.251445	NM_010308	Gnao1	Guanine nucleotide binding protein, alpha o	
C11	Mm.393508	NM_010311	Gnaz	Guanine nucleotide binding protein, alpha z subunit	
C12	Mm.2344	NM_008142	Gnb1	Guanine nucleotide binding protein (G protein), beta 1	
D01	Mm.30141	NM_010312	Gnb2	Guanine nucleotide binding protein (G protein), beta 2	
D02	Mm.139192	NM_013531	Gnb4	Guanine nucleotide binding protein (G protein), beta 4	
D03	Mm.17604	NM_010313	Gnb5	Guanine nucleotide binding protein (G protein), beta 5	
D04	Mm.41780	NM_025277	Gng10	Guanine nucleotide binding protein (G protein), gamma 10	
D05	Mm.25547	NM_025331	Gng11	Guanine nucleotide binding protein (G protein), gamma 11	
D06	Mm.482164	NM_010316	Gng3	Guanine nucleotide binding protein (G protein), gamma 3	
D07	Mm.215394	NM 010317	Gng4	Guanine nucleotide binding protein (G protein), gamma 4	
D08	Mm.140804	NM 010318	Gng5	Guanine nucleotide binding protein (G protein), gamma 5	
D09	Mm.222496	NM 010319	Gng7	Guanine nucleotide binding protein (G protein), gamma 7	
D10	Mm.103770	NM 010320	Gng8	Guanine nucleotide binding protein (G protein), gamma 8	
		_	-	Guanine nucleotide binding protein (G protein), gamma transducing activity	
D11	Mm.95398	NM_010314	Gngt1	polypeptide 1	
D12	Mm.46299	NM_023121	Gngt2	Guanine nucleotide binding protein (G protein), gamma transducing activity	
F0:	11 17:7:	_		polypeptide 2	
E01	Mm.476745	NM_001031667	Gsk3a	Glycogen synthase kinase 3 alpha	
E02	Mm.394930	NM_019827	Gsk3b	Glycogen synthase kinase 3 beta	
E03	Mm.6994	NM_016763	Hsd17b10	Hydroxysteroid (17-beta) dehydrogenase 10	
E04	Mm.28366	NM_031156	lde	Insulin degrading enzyme	
E05	Mm.3862	NM_010514	lgf2	Insulin-like growth factor 2	
E06	Mm.15534	NM_010554	II1a	Interleukin 1 alpha	
E07	Mm.268003	NM 010568	Insr	Insulin receptor	

Position	UniGene	GenBank	Symbol	Description	
E08	Mm.1514	NM_008509	Lpl	Lipoprotein lipase	
E09	Mm.271854	NM_008512	Lrp1	Low density lipoprotein receptor-related protein 1	
E10	Mm.321990	NM_008514	Lrp6	Low density lipoprotein receptor-related protein 6	
E11	Mm.442134	NM_001080926	Lrp8	Low density lipoprotein receptor-related protein 8, apolipoprotein e receptor	
E12	Mm.1287	NM_010838	Mapt	Microtubule-associated protein tau	
F01	Mm.4668	NM 010824	Мро	Myeloperoxidase	
F02	Mm.256966	NM 001039934	Mtap2	Microtubule-associated protein 2	
F03	Mm.237670	NM 144931	Nae1	NEDD8 activating enzyme E1 subunit 1	
F04	Mm.218203	NM 021607	Ncstn	Nicastrin	
F05	Mm.260938	NM 026361	Pkp4	Plakophilin 4	
F06	Mm.154660	NM 008872	Plat	Plasminogen activator, tissue	
F07	Mm.4183	NM 008873	Plau	Plasminogen activator, urokinase	
F08	Mm.971	NM 008877	Plg	Plasminogen	
F09	Mm.222178	NM 011101	Prkca	Protein kinase C, alpha	
F10	Mm.207496	NM 008855	Prkcb	Protein kinase C, beta	
F11	Mm.7980	NM 011102	Prkcc	Protein kinase C, gamma	
F12	Mm.2314	NM 011103	Prkcd	Protein kinase C, delta	
G01	Mm.24614	NM 011104	Prkce	Protein kinase C, epsilon	
G02	Mm.291554	NM 008857	Prkci	Protein kinase C, iota	
G03	Mm.329993	NM 008859	Prkcq	Protein kinase C, theta	
G04	Mm.28561	NM 008860	Prkcz	Protein kinase C, zeta	
G05	Mm.998	NM 008943	Psen1	Presenilin 1	
G06	Mm.330850	NM 011183	Psen2	Presenilin 2	
G07	Mm.422814	NM 008458	Serpina3c	Serine (or cysteine) peptidase inhibitor, clade A, member 3C	
G08	Mm.17484	NM 009221	Snca	Synuclein, alpha	
G09	Mm.200843	NM 033610	Sncb	Synuclein, beta	
G10	Mm.182053	NM 026842	Ubgln1	Ubiquilin 1	
G11	Mm.335460	NM 025407	Ugcrc1	Ubiquinol-cytochrome c reductase core protein 1	
G12	Mm.334206	NM 025899	Uqcrc2	Ubiquinol cytochrome c reductase core protein 2	
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	
		SA 00103	PPC	Positive PCR Control	
H11	N/A	JA 00103	110	FOSITIVE FCK CONTROL	

### Related products

For optimal performance, RT2 Profiler PCR Arrays should be used together with the RT2 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

<sup>\*</sup> 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.giagen. com or can be requested from QIAGEN Technical Services or your local distributor.

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