

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

Mouse Alzheimer's Disease

Cat. no. 330231 PAMM-057ZA

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 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 (Aβ) generation, clearance, and degradation, as well as genes involved in amyloid beta-peptide (Aβ) 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 *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	A2m	Abca1	Ache	Adam9	Apba1	Apba3	Apbb1	Apbb2	Aph1a	Aplp1	Aplp2	Apoa1
B	ApoE	App	Bace1	Bace2	Bche	Bdnf	Casp3	Casp4	Cdk1	Cdk5	Cdkl1	Chat
C	Clu	Ctsb	Ctsc	Ctsd	Ctsg	Ctsl	Ep300	Ern1	Gap43	Gnao1	Gnaz	Gnb1
D	Gnb2	Gnb4	Gnb5	Gng10	Gng11	Gng3	Gng4	Gng5	Gng7	Gng8	Gngt1	Gngt2
E	Gsk3a	Gsk3b	Hsd17b10	Ide	Igf2	Il1a	Insr	Lpl	Lrp1	Lrp6	Lrp8	Mapt
F	Mpo	Mtap2	Nae1	Ncstn	Pkp4	Plat	Plau	Plg	Prkca	Prkcb	Prkcc	Prkcd
G	Prkce	Prkci	Prkq	Prkcz	Psen1	Psen2	Serpina3c	Snca	Snca	Ubqln1	Uqcrc1	Uqcrc2
H	Actb	B2m	Gapdh	Gusb	Hsp90ab1	MGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² 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	Apoa1	Apolipoprotein A-I
B01	Mm.305152	NM_009696	ApoE	Apolipoprotein E
B02	Mm.277585	NM_007471	App	Amyloid beta (A4) precursor protein
B03	Mm.24044	NM_011792	Bace1	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
B06	Mm.1442	NM_007540	Bdnf	Brain derived neurotrophic factor
B07	Mm.34405	NM_009810	Casp3	Caspase 3
B08	Mm.1569	NM_007609	Casp4	Caspase 4, apoptosis-related cysteine peptidase
B09	Mm.281367	NM_007659	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	Ern1	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

Position	UniGene	GenBank	Symbol	Description
D10	Mm.103770	NM_010320	Gng8	Guanine nucleotide binding protein (G protein), gamma 8
D11	Mm.95398	NM_010314	Gngt1	Guanine nucleotide binding protein (G protein), gamma transducing activity polypeptide 1
D12	Mm.46299	NM_023121	Gngt2	Guanine nucleotide binding protein (G protein), gamma transducing activity 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	Ide	Insulin degrading enzyme
E05	Mm.3862	NM_010514	Igf2	Insulin-like growth factor 2
E06	Mm.15534	NM_010554	Il1a	Interleukin 1 alpha
E07	Mm.268003	NM_010568	Insr	Insulin receptor
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	Mpo	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	Prkcg	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	Ubqln1	Ubiquilin 1
G11	Mm.335460	NM_025407	Uqcrc1	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
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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