

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

## Rat Alzheimer's Disease

Cat. no. 330231 PARN-057ZR

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 Rat Alzheimer's Disease RT<sup>2</sup> 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 betapeptide (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 *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	Rn.198688	NM_012488	A2m	Alpha-2-macroglobulin
A02	Rn.148916	NM_178095	Abca1	ATP-binding cassette, subfamily A (ABC1), member 1
A03	Rn.105879	NM_172009	Ache	Acetylcholinesterase
A04	Rn.25221	NM_001014772	Adam9	ADAM metallopeptidase domain 9 (meltrin gamma)
A05	Rn.54819	NM_031779	Apba1	Amyloid beta (A4) precursor protein-binding, family A, member 1
A06	Rn.6924	NM_031781	Apba3	Amyloid beta (A4) precursor protein-binding, family A, member 3
A07	Rn.19953	NM_080478	Apbb1	Amyloid beta (A4) precursor protein-binding, family B, member 1 (Fe65)
A08	Rn.24283	XM_223399	Apbb2	Amyloid beta (A4) precursor protein-binding, family B, member 2
A09	Rn.22786	NM_001014255	Aph1a	Anterior pharynx defective 1 homolog A (C. elegans)
A10	Rn.1423	XM_343513	Apfp2	Amyloid beta (A4) precursor-like protein 2
A11	Rn.10308	NM_012738	Apoa1	Apolipoprotein A-I
A12	Rn.32351	NM_138828	ApoE	Apolipoprotein E
B01	Rn.2104	NM_019288	App	Amyloid beta (A4) precursor protein
B02	Rn.207201	NM_019204	Bace1	Beta-site APP cleaving enzyme 1
B03	Rn.38581	NM_001002802	Bace2	Beta-site APP-cleaving enzyme 2
B04	Rn.48791	NM_022942	Bche	Butyrylcholinesterase
B05	Rn.11266	NM_012513	Bdnf	Brain-derived neurotrophic factor
B06	Rn.6037	NM_019152	Capn1	Calpain 1
B07	Rn.10562	NM_012922	Casp3	Caspase 3
B08	Rn.16195	NM_053736	Casp4	Caspase 4, apoptosis-related cysteine peptidase
B09	Rn.6934	NM_019296	Cdk1	Cyclin-dependent kinase 1
B10	Rn.10749	NM_080885	Cdk5	Cyclin-dependent kinase 5
B11	Rn.182073	NM_001025121	Cdkl1	Cyclin-dependent kinase-like 1 (CDC2-related kinase)
B12	Rn.104846	XM_224626	Chat	Choline acetyltransferase
C01	Rn.1780	NM_053021	Clu	Clusterin
C02	Rn.100909	NM_022597	Ctsb	Cathepsin B
C03	Rn.203177	NM_017097	Ctsc	Cathepsin C
C04	Rn.11085	NM_134334	Ctsd	Cathepsin D
C05	Rn.103332	NM_001106041	Ctsg	Cathepsin G
C06	Rn.1294	NM_013156	Ctsl1	Cathepsin L1
C07	Rn.12447	XM_576312	Ep300	E1A binding protein p300
C08	Rn.10928	NM_017195	Gap43	Growth associated protein 43
C09	Rn.90161	NM_017327	Gnao1	Guanine nucleotide binding protein (G protein), alpha activating activity polypeptide O
C10	Rn.10943	NM_013189	Gnaz	Guanine nucleotide binding protein (G protein), alpha z polypeptide
C11	Rn.126047	NM_030987	Gnb1	Guanine nucleotide binding protein (G protein), beta polypeptide 1
C12	Rn.1155	NM_031037	Gnb2	Guanine nucleotide binding protein (G protein), beta polypeptide 2
D01	Rn.10844	NM_001013910	Gnb4	Guanine nucleotide binding protein (G protein), beta polypeptide 4
D02	Rn.23042	NM_031770	Gnb5	Guanine nucleotide binding protein (G protein), beta 5
D03	Rn.3319	NM_053660	Gng10	Guanine nucleotide binding protein (G protein), gamma 10
D04	Rn.892	NM_022396	Gng11	Guanine nucleotide binding protein (G protein), gamma 11
D05	Rn.2695	NM_024377	Gng5	Guanine nucleotide binding protein (G protein), gamma 5
D06	Rn.11335	NM_024138	Gng7	Guanine nucleotide binding protein (G protein), gamma 7
D07	Rn.11233	NM_139185	Gng8	Guanine nucleotide binding protein (G protein), gamma 8
D08	Rn.36807	NM_017344	Gsk3a	Glycogen synthase kinase 3 alpha
D09	Rn.10426	NM_032080	Gsk3b	Glycogen synthase kinase 3 beta
D10	Rn.2700	NM_031682	Hsd17b10	Hydroxysteroid (17-beta) dehydrogenase 10
D11	Rn.45029	NM_013159	Ide	Insulin degrading enzyme
D12	Rn.118681	NM_031511	Igf2	Insulin-like growth factor 2
E01	Rn.12300	NM_017019	Il1a	Interleukin 1 alpha
E02	Rn.9869	NM_031512	Il1b	Interleukin 1 beta
E03	Rn.989	NM_019130	Ins2	Insulin 2
E04	Rn.9876	NM_017071	Insr	Insulin receptor
E05	Rn.3834	NM_012598	Lpl	Lipoprotein lipase
E06	Rn.22436	XM_243524	Lrp1	Low density lipoprotein-related protein 1 (alpha-2-macroglobulin receptor)
E07	Rn.32960	NM_001107892	Lrp6	Low density lipoprotein receptor-related protein 6
E08	Rn.10484	NM_013066	Map2	Microtubule-associated protein 2

Position	UniGene	GenBank	Symbol	Description
E09	Rn.2455	NM_017212	Mapt	Microtubule-associated protein tau
E10	Rn.47782	NM_001107036	Mpo	Myeloperoxidase
E11	Rn.11325	NM_053968	Mt3	Metallothionein 3
E12	Rn.4279	NM_032072	Nae1	NEDD8 activating enzyme E1 subunit 1
F01	Rn.51975	NM_174864	Ncstn	Nicastrin
F02	Rn.3383	NM_001106360	Ndufb8	NADH dehydrogenase (ubiquinone) 1 beta subcomplex 8
F03	Rn.17389	NM_001106482	Plk4	Plakophilin 4
F04	Rn.107102	NM_013151	Plat	Plasminogen activator, tissue
F05	Rn.6064	NM_013085	Plau	Plasminogen activator, urokinase
F06	Rn.20178	NM_053491	Plg	Plasminogen
F07	Rn.22079	NM_134367	Ppp3cc	Protein phosphatase 3, catalytic subunit, gamma isoform
F08	Rn.207908	NM_001105713	Prkca	Protein kinase C, alpha
F09	Rn.91118	NM_012713	Prkcb	Protein kinase C, beta
F10	Rn.98279	NM_133307	Prkcd	Protein kinase C, delta
F11	Rn.216481	NM_017171	Prkce	Protein kinase C, epsilon
F12	Rn.9747	NM_012628	Prkcg	Protein kinase C, gamma
G01	Rn.1388	NM_032059	Prkci	Protein kinase C, iota
G02	Rn.8227	XM_341553	Prkcz	Protein kinase C, theta
G03	Rn.1109	NM_022507	Prkcz	Protein kinase C, zeta
G04	Rn.44440	NM_019163	Psen1	Presenilin 1
G05	Rn.11045	NM_031087	Psen2	Presenilin 2
G06	Rn.91257	NM_012657	Serpina3k	Serine (or cysteine) peptidase inhibitor, clade A, member 3K
G07	Rn.202939	NM_031531	Serpina3n	Serine (or cysteine) peptidase inhibitor, clade A, member 3N
G08	Rn.1827	NM_019169	Snca	Synuclein, alpha (non A4 component of amyloid precursor)
G09	Rn.20352	NM_080777	Sncb	Synuclein, beta
G10	Rn.94864	NM_053747	Ubqln1	Ubiquilin 1
G11	Rn.3428	NM_001004250	Uqcrc1	Ubiquinol-cytochrome c reductase core protein 1
G12	Rn.2334	NM_001006970	Uqcrc2	Ubiquinol cytochrome c reductase core protein 2
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, 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™ 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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