

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

Mouse EGF / PDGF Signaling Pathway

Cat. no. 330231 PAMM-040ZA

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 EGF / PDGF Signaling RT² Profiler PCR Array profiles the expression of 84 genes related to EGF / PDGF-mediated signal transduction. This array includes genes that encode members of the Epidermal Growth Factor (EGF) and Platelet-Derived Growth Factor (PDGF) Signaling Pathways. The array represents growth factors and their receptors, proteins involved in signaling downstream of the growth factors, and the genes targeted by growth factor-mediated stimulation. Members of the MAP Kinase pathway, the AKT / PI3K pathway, and other downstream signaling cascades are included as well. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to EGF / PDGF signaling 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	<i>Actr2</i>	<i>Akt1</i>	<i>Akt2</i>	<i>Akt3</i>	<i>Araf</i>	<i>Aif1</i>	<i>Aif2</i>	<i>Bad</i>	<i>Bcar1</i>	<i>Bcl2</i>	<i>Braf</i>	<i>Casp3</i>
B	<i>Casp9</i>	<i>Cblb</i>	<i>Ccnd1</i>	<i>Chuk</i>	<i>Col1a1</i>	<i>Creb1</i>	<i>Csnk2a1</i>	<i>Csnk2b</i>	<i>Dusp1</i>	<i>Dusp6</i>	<i>Egf</i>	<i>Egfr</i>
C	<i>Egr1</i>	<i>Eif4e</i>	<i>Eps8</i>	<i>Fasf</i>	<i>Fn1</i>	<i>Fos</i>	<i>Foxo3</i>	<i>Gab1</i>	<i>Grb2</i>	<i>Gsk3a</i>	<i>Gsk3b</i>	<i>Hbegf</i>
D	<i>Hras1</i>	<i>Ikbbk</i>	<i>Il2</i>	<i>Jak1</i>	<i>Jun</i>	<i>Kcnh8</i>	<i>Kras</i>	<i>Lta</i>	<i>Map2k1</i>	<i>Map2k4</i>	<i>Map2k7</i>	<i>Map3k2</i>
E	<i>Mapk1</i>	<i>Mapk10</i>	<i>Mapk3</i>	<i>Mapk8</i>	<i>Mapk9</i>	<i>Mknk1</i>	<i>Mmp7</i>	<i>Nck2</i>	<i>Nfatc3</i>	<i>Nfkb1</i>	<i>Nras</i>	<i>Nup62</i>
F	<i>Pdgfa</i>	<i>Pdgfb</i>	<i>Pdgfra</i>	<i>Pdpk1</i>	<i>Pik3ca</i>	<i>Pik3r1</i>	<i>Pik3r2</i>	<i>Plat</i>	<i>Plcg1</i>	<i>Ppp2ca</i>	<i>Prkca</i>	<i>Pten</i>
G	<i>Raf1</i>	<i>Rap1a</i>	<i>Rasa1</i>	<i>Rhoa</i>	<i>Rps6ka5</i>	<i>Rps6kb1</i>	<i>Shc1</i>	<i>Src</i>	<i>Stat1</i>	<i>Stat3</i>	<i>Stat5a</i>	<i>Trp53</i>
H	<i>Actb</i>	<i>B2m</i>	<i>Gapdh</i>	<i>Gusb</i>	<i>Hsp90ab1</i>	<i>MGDC</i>	<i>RTC</i>	<i>RTC</i>	<i>RTC</i>	<i>PPC</i>	<i>PPC</i>	<i>PPC</i>

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Mm.259045	NM_146243	<i>Actr2</i>	ARP2 actin-related protein 2 homolog (yeast)
A02	Mm.6645	NM_009652	<i>Akt1</i>	Thymoma viral proto-oncogene 1
A03	Mm.177194	NM_007434	<i>Akt2</i>	Thymoma viral proto-oncogene 2
A04	Mm.235194	NM_011785	<i>Akt3</i>	Thymoma viral proto-oncogene 3
A05	Mm.220946	NM_009703	<i>Araf</i>	V-raf murine sarcoma 3611 viral oncogene homolog
A06	Mm.473546	NM_007497	<i>Aif1</i>	Activating transcription factor 1
A07	Mm.209903	NM_009715	<i>Aif2</i>	Activating transcription factor 2
A08	Mm.4387	NM_007522	<i>Bad</i>	BCL2-associated agonist of cell death
A09	Mm.3758	NM_009954	<i>Bcar1</i>	Breast cancer anti-estrogen resistance 1
A10	Mm.257460	NM_009741	<i>Bcl2</i>	B-cell leukemia/lymphoma 2
A11	Mm.245513	NM_139294	<i>Braf</i>	Braf transforming gene
A12	Mm.34405	NM_009810	<i>Casp3</i>	Caspase 3
B01	Mm.88829	NM_015733	<i>Casp9</i>	Caspase 9
B02	Mm.328206	NM_001033238	<i>Cblb</i>	Casitas B-lineage lymphoma b
B03	Mm.273049	NM_007631	<i>Ccnd1</i>	Cyclin D1
B04	Mm.3996	NM_007700	<i>Chuk</i>	Conserved helix-loop-helix ubiquitous kinase
B05	Mm.277735	NM_007742	<i>Col1a1</i>	Collagen, type I, alpha 1
B06	Mm.453295	NM_133828	<i>Creb1</i>	CAMP responsive element binding protein 1
B07	Mm.23692	NM_007788	<i>Csnk2a1</i>	Casein kinase 2, alpha 1 polypeptide
B08	Mm.378901	NM_009975	<i>Csnk2b</i>	Casein kinase 2, beta polypeptide
B09	Mm.239041	NM_013642	<i>Dusp1</i>	Dual specificity phosphatase 1
B10	Mm.1791	NM_026268	<i>Dusp6</i>	Dual specificity phosphatase 6
B11	Mm.252481	NM_010113	<i>Egf</i>	Epidermal growth factor
B12	Mm.8534	NM_007912	<i>Egfr</i>	Epidermal growth factor receptor
C01	Mm.181959	NM_007913	<i>Egr1</i>	Early growth response 1
C02	Mm.3941	NM_007917	<i>Eif4e</i>	Eukaryotic translation initiation factor 4E
C03	Mm.235346	NM_007945	<i>Eps8</i>	Epidermal growth factor receptor pathway substrate 8
C04	Mm.3355	NM_010177	<i>Fasf</i>	Fas ligand (TNF superfamily, member 6)
C05	Mm.193099	NM_010233	<i>Fn1</i>	Fibronectin 1
C06	Mm.246513	NM_010234	<i>Fos</i>	FBJ osteosarcoma oncogene
C07	Mm.338613	NM_019740	<i>Foxo3</i>	Forkhead box O3
C08	Mm.277409	NM_021356	<i>Gab1</i>	Growth factor receptor bound protein 2-associated protein 1
C09	Mm.439649	NM_008163	<i>Grb2</i>	Growth factor receptor bound protein 2
C10	Mm.476745	NM_001031667	<i>Gsk3a</i>	Glycogen synthase kinase 3 alpha
C11	Mm.394930	NM_019827	<i>Gsk3b</i>	Glycogen synthase kinase 3 beta
C12	Mm.289681	NM_010415	<i>Hbegf</i>	Heparin-binding EGF-like growth factor
D01	Mm.334313	NM_008284	<i>Hras1</i>	Harvey rat sarcoma virus oncogene 1
D02	Mm.277886	NM_010546	<i>Ikbbk</i>	Inhibitor of kappaB kinase beta
D03	Mm.14190	NM_008366	<i>Il2</i>	Interleukin 2
D04	Mm.289657	NM_146145	<i>Jak1</i>	Janus kinase 1
D05	Mm.275071	NM_010591	<i>Jun</i>	Jun oncogene
D06	Mm.399068	NM_001031811	<i>Kcnh8</i>	Potassium voltage-gated channel, subfamily H (eag-related), member 8
D07	Mm.383182	NM_021284	<i>Kras</i>	V-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog
D08	Mm.87787	NM_010735	<i>Lta</i>	Lymphotoxin A
D09	Mm.248907	NM_008927	<i>Map2k1</i>	Mitogen-activated protein kinase kinase 1

Position	UniGene	GenBank	Symbol	Description
D10	Mm.412922	NM_009157	Map2k4	Mitogen-activated protein kinase kinase 4
D11	Mm.3906	NM_011944	Map2k7	Mitogen-activated protein kinase kinase 7
D12	Mm.211762	NM_011946	Map3k2	Mitogen-activated protein kinase kinase kinase 2
E01	Mm.196581	NM_011949	Mapk1	Mitogen-activated protein kinase 1
E02	Mm.39253	NM_009158	Mapk10	Mitogen-activated protein kinase 10
E03	Mm.8385	NM_011952	Mapk3	Mitogen-activated protein kinase 3
E04	Mm.21495	NM_016700	Mapk8	Mitogen-activated protein kinase 8
E05	Mm.68933	NM_016961	Mapk9	Mitogen-activated protein kinase 9
E06	Mm.209327	NM_021461	Mknk1	MAP kinase-interacting serine/threonine kinase 1
E07	Mm.4825	NM_010810	Mmp7	Matrix metalloproteinase 7
E08	Mm.389903	NM_010879	Nck2	Non-catalytic region of tyrosine kinase adaptor protein 2
E09	Mm.383185	NM_010901	Nfatc3	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 3
E10	Mm.256765	NM_008689	Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1, p105
E11	Mm.400954	NM_010937	Nras	Neuroblastoma ras oncogene
E12	Mm.2565	NM_053074	Nup62	Nucleoporin 62
F01	Mm.2675	NM_008808	Pdgfa	Platelet derived growth factor, alpha
F02	Mm.144089	NM_011057	Pdgfb	Platelet derived growth factor, B polypeptide
F03	Mm.221403	NM_011058	Pdgfra	Platelet derived growth factor receptor, alpha polypeptide
F04	Mm.10504	NM_011062	Pdpk1	3-phosphoinositide dependent protein kinase 1
F05	Mm.260521	NM_008839	Pik3ca	Phosphatidylinositol 3-kinase, catalytic, alpha polypeptide
F06	Mm.259333	NM_001024955	Pik3r1	Phosphatidylinositol 3-kinase, regulatory subunit, polypeptide 1 (p85 alpha)
F07	Mm.12945	NM_008841	Pik3r2	Phosphatidylinositol 3-kinase, regulatory subunit, polypeptide 2 (p85 beta)
F08	Mm.154660	NM_008872	Plat	Plasminogen activator, tissue
F09	Mm.44463	NM_021280	Plcg1	Phospholipase C, gamma 1
F10	Mm.260288	NM_019411	Ppp2ca	Protein phosphatase 2 (formerly 2A), catalytic subunit, alpha isoform
F11	Mm.222178	NM_011101	Prkca	Protein kinase C, alpha
F12	Mm.245395	NM_008960	Pten	Phosphatase and tensin homolog
G01	Mm.184163	NM_029780	Raf1	V-raf-leukemia viral oncogene 1
G02	Mm.458171	NM_145541	Rap1a	RAS-related protein-1a
G03	Mm.259653	NM_145452	Rasa1	RAS p21 protein activator 1
G04	Mm.757	NM_016802	Rhoa	Ras homolog gene family, member A
G05	Mm.220417	NM_153587	Rps6ka5	Ribosomal protein S6 kinase, polypeptide 5
G06	Mm.394280	NM_028259	Rps6kb1	Ribosomal protein S6 kinase, polypeptide 1
G07	Mm.86595	NM_011368	Shc1	Src homology 2 domain-containing transforming protein C1
G08	Mm.22845	NM_009271	Src	Rous sarcoma oncogene
G09	Mm.277406	NM_009283	Stat1	Signal transducer and activator of transcription 1
G10	Mm.249934	NM_011486	Stat3	Signal transducer and activator of transcription 3
G11	Mm.277403	NM_011488	Stat5a	Signal transducer and activator of transcription 5A
G12	Mm.222	NM_011640	Trp53	Transformation related protein 53
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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