

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

Rat EGF / PDGF Signaling Pathway

Cat. no. 330231 PARN-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 Rat 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>Acr2</i>	<i>Akt1</i>	<i>Akt2</i>	<i>Akt3</i>	<i>Araf</i>	<i>Ahf1</i>	<i>Ahf2</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>Colla1</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>Faslg</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>Hras</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>Nkx1</i>	<i>Nras</i>	<i>Nup62</i>
F	<i>Pdgfra</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>Rapl1a</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>Tp53</i>
H	<i>Actb</i>	<i>B2m</i>	<i>Hprt1</i>	<i>Ldha</i>	<i>Rplp1</i>	<i>RGDC</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	Rn.102249	NM_001009268	<i>Acr2</i>	ARP2 actin-related protein 2 homolog (yeast)
A02	Rn.11422	NM_033230	<i>Akt1</i>	V-akt murine thymoma viral oncogene homolog 1
A03	Rn.87066	NM_017093	<i>Akt2</i>	V-akt murine thymoma viral oncogene homolog 2
A04	Rn.10506	NM_031575	<i>Akt3</i>	V-akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma)
A05	Rn.1714	NM_022532	<i>Araf</i>	V-raf murine sarcoma 3611 viral oncogene homolog
A06	Rn.105304	NM_001100895	<i>Ahf1</i>	Activating transcription factor 1
A07	Rn.9825	NM_031018	<i>Ahf2</i>	Activating transcription factor 2
A08	Rn.36696	NM_022698	<i>Bad</i>	BCL2-associated agonist of cell death
A09	Rn.40101	NM_012931	<i>Bcar1</i>	Breast cancer anti-estrogen resistance 1
A10	Rn.9996	NM_016993	<i>Bcl2</i>	B-cell CLL/lymphoma 2
A11	Rn.205813	XM_231692	<i>Braf</i>	V-raf murine sarcoma viral oncogene homolog B1
A12	Rn.10562	NM_012922	<i>Casp3</i>	Caspase 3
B01	Rn.32199	NM_031632	<i>Casp9</i>	Caspase 9, apoptosis-related cysteine peptidase
B02	Rn.21799	NM_133601	<i>Cblb</i>	Cas-Br-M (murine) ecotropic retroviral transforming sequence b
B03	Rn.22279	NM_171992	<i>Ccnd1</i>	Cyclin D1
B04	Rn.23019	NM_001107588	<i>Chuk</i>	Conserved helix-loop-helix ubiquitous kinase
B05	Rn.2953	NM_053304	<i>Colla1</i>	Collagen, type I, alpha 1
B06	Rn.90061	NM_031017	<i>Creb1</i>	CAMP responsive element binding protein 1
B07	Rn.4231	NM_053824	<i>Csnk2a1</i>	Casein kinase 2, alpha 1 polypeptide
B08	Rn.137692	NM_031021	<i>Csnk2b</i>	Casein kinase 2, beta polypeptide
B09	Rn.98260	NM_053769	<i>Dusp1</i>	Dual specificity phosphatase 1
B10	Rn.4313	NM_053883	<i>Dusp6</i>	Dual specificity phosphatase 6
B11	Rn.6075	NM_012842	<i>Egf</i>	Epidermal growth factor
B12	Rn.37227	NM_031507	<i>Egfr</i>	Epidermal growth factor receptor
C01	Rn.9096	NM_012551	<i>Egr1</i>	Early growth response 1
C02	Rn.11275	NM_053974	<i>Eif4e</i>	Eukaryotic translation initiation factor 4E
C03	Rn.123609	XM_232499	<i>Eps8</i>	Epidermal growth factor receptor pathway substrate 8
C04	Rn.9725	NM_012908	<i>Faslg</i>	Fas ligand (TNF superfamily, member 6)
C05	Rn.1604	NM_019143	<i>Fn1</i>	Fibronectin 1
C06	Rn.103750	NM_022197	<i>Fos</i>	FBJ osteosarcoma oncogene
C07	Rn.24593	NM_001106395	<i>Foxo3</i>	Forkhead box O3
C08	Rn.1725	NM_001108444	<i>Gab1</i>	GRB2-associated binding protein 1
C09	Rn.3360	NM_030846	<i>Grb2</i>	Growth factor receptor bound protein 2
C10	Rn.36807	NM_017344	<i>Gsk3a</i>	Glycogen synthase kinase 3 alpha
C11	Rn.10426	NM_032080	<i>Gsk3b</i>	Glycogen synthase kinase 3 beta
C12	Rn.10148	NM_012945	<i>Hbegf</i>	Heparin-binding EGF-like growth factor
D01	Rn.102180	NM_001098241	<i>Hras</i>	Harvey rat sarcoma virus oncogene
D02	Rn.19222	NM_053355	<i>Ikbbk</i>	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase beta
D03	Rn.9871	NM_053836	<i>Il2</i>	Interleukin 2
D04	Rn.90191	NM_053466	<i>Jak1</i>	Janus kinase 1
D05	Rn.93714	NM_021835	<i>Jun</i>	Jun oncogene
D06	Rn.30029	NM_145095	<i>Kcnh8</i>	Potassium voltage-gated channel, subfamily H (eag-related), member 8
D07	Rn.24554	NM_031515	<i>Kras</i>	V-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog
D08	Rn.160577	NM_080769	<i>Lta</i>	Lymphotoxin alpha (TNF superfamily, member 1)
D09	Rn.5850	NM_031643	<i>Map2k1</i>	Mitogen activated protein kinase kinase 1

Position	UniGene	GenBank	Symbol	Description
D10	Rn.198875	NM_001030023	Map2k4	Mitogen activated protein kinase kinase 4
D11	Rn.162081	NM_001025425	Map2k7	Mitogen activated protein kinase kinase 7
D12	Rn.213212	NM_138503	Map3k2	Mitogen activated protein kinase kinase kinase 2
E01	Rn.34914	NM_053842	Mapk1	Mitogen activated protein kinase 1
E02	Rn.9911	NM_012806	Mapk10	Mitogen activated protein kinase 10
E03	Rn.2592	NM_017347	Mapk3	Mitogen activated protein kinase 3
E04	Rn.4090	XM_341399	Mapk8	Mitogen-activated protein kinase 8
E05	Rn.9910	NM_017322	Mapk9	Mitogen-activated protein kinase 9
E06	Rn.7910	NM_001044267	Mknk1	MAP kinase-interacting serine/threonine kinase 1
E07	Rn.10282	NM_012864	Mmp7	Matrix metalloproteinase 7
E08	Rn.9067	NM_001108216	Nck2	NCK adaptor protein 2
E09	Rn.217507	NM_001108447	Nfatc3	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 3
E10	Rn.2411	XM_342346	Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
E11	Rn.217722	NM_080766	Nras	Neuroblastoma ras oncogene
E12	Rn.54450	NM_023098	Nup62	Nucleoporin 62
F01	Rn.10999	NM_012801	Pdgfa	Platelet-derived growth factor alpha polypeptide
F02	Rn.198230	NM_031524	Pdgfb	Platelet-derived growth factor beta polypeptide (simian sarcoma viral (v-sis) oncogene homolog)
F03	Rn.55127	NM_012802	Pdgfra	Platelet derived growth factor receptor, alpha polypeptide
F04	Rn.10905	NM_031081	Pdpk1	3-phosphoinositide dependent protein kinase-1
F05	Rn.44193	NM_133399	Pik3ca	Phosphoinositide-3-kinase, catalytic, alpha polypeptide
F06	Rn.10599	NM_013005	Pik3r1	Phosphoinositide-3-kinase, regulatory subunit 1 (alpha)
F07	Rn.22497	NM_022185	Pik3r2	Phosphoinositide-3-kinase, regulatory subunit 2 (beta)
F08	Rn.107102	NM_013151	Plat	Plasminogen activator, tissue
F09	Rn.11243	NM_013187	Plcg1	Phospholipase C, gamma 1
F10	Rn.1271	NM_017039	Ppp2ca	Protein phosphatase 2, catalytic subunit, alpha isoform
F11	Rn.207908	NM_001105713	Prkca	Protein kinase C, alpha
F12	Rn.22158	NM_031606	Pten	Phosphatase and tensin homolog
G01	Rn.33262	NM_012639	Raf1	V-raf-leukemia viral oncogene 1
G02	Rn.106321	NM_001005765	Rap1a	RAP1A, member of RAS oncogene family
G03	Rn.12223	NM_013135	Rasa1	RAS p21 protein activator (GTPase activating protein) 1
G04	Rn.107401	NM_057132	Rhoa	Ras homolog gene family, member A
G05	Rn.8940	NM_001108048	Rps6ka5	Ribosomal protein S6 kinase, polypeptide 5
G06	Rn.4042	NM_031985	Rps6kb1	Ribosomal protein S6 kinase, polypeptide 1
G07	Rn.138818	NM_053517	Shc1	SHC (Src homology 2 domain containing) transforming protein 1
G08	Rn.112600	NM_031977	Src	V-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (avian)
G09	Rn.33229	NM_032612	Stat1	Signal transducer and activator of transcription 1
G10	Rn.10247	NM_012747	Stat3	Signal transducer and activator of transcription 3
G11	Rn.154399	NM_017064	Stat5a	Signal transducer and activator of transcription 5A
G12	Rn.54443	NM_030989	Tp53	Tumor protein p53
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, 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.

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.

Trademarks: QIAGEN® (QIAGEN Group); Applied Biosystems®, ViiA™, StepOnePlus™, ROX™ (Applied Biosystems Corporation or its subsidiaries); Bio-Rad®, iCycler®, iQ™, MyiQ™, Chromo4™, CFX96™, DNA Engine Opticon®, CFX384™ (Bio-Rad Laboratories, Inc.); Stratagene®, Mx3005P®, Mx3000P®, Mx4000® (Stratagene); Eppendorf®, Mastercycler® (Eppendorf AG); Roche®, LightCycler® (Roche Group); Fluidigm® BioMark™ (Fluidigm Corporation); SYBR® (Molecular Probes, Inc.).

1066029 03/2011 © 2011 QIAGEN, all rights reserved.

www.qiagen.com

Canada ■ 800-572-9613

Ireland ■ 1800 555 049

Norway ■ 800-18859

China ■ 8621-3865-3865

Italy ■ 800-787980

Singapore ■ 1800-742-4368

Denmark ■ 80-885945

Japan ■ 03-6890-7300

Spain ■ 91-630-7050

Australia ■ 1-800-243-800

Finland ■ 0800-914416

Korea (South) ■ 080-000-7145

Sweden ■ 020-790282

Austria ■ 0800/281010

France ■ 01-60-920-930

Luxembourg ■ 8002 2076

Switzerland ■ 055-254-22-11

Belgium ■ 0800-79612

Germany ■ 02103-29-12000

Mexico ■ 01-800-7742-436

UK ■ 01293-422-911

Brazil ■ 0800-557779

Hong Kong ■ 800 933 965

The Netherlands ■ 0800 0229592

USA ■ 800-426-8157



Sample & Assay Technologies