

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

Human EGF / PDGF Signaling Pathway

Cat. no. 330231 PAHS-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 Human 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	ACTR2	AKT1	AKT2	AKT3	ARAF	ATF1	ATF2	BAD	BCAR1	BCL2	BRAF	CASP3
B	CASP9	CBL	CCND1	CHUK	COL1A1	CREB1	CSNK2A1	CSNK2B	DUSP1	DUSP6	EGF	EGFR
C	EGR1	EIF4E	ELK1	EPS8	FASLG	FN1	FOS	FOXO3	GAB1	GRB2	GSK3A	GSK3B
D	HBEGF	HRAS	IKKB	IL2	JAK1	JUN	KRAS	LTA	MAP2K1	MAP2K4	MAP2K7	MAP3K2
E	MAPK1	MAPK10	MAPK3	MAPK8	MAPK9	MKNK1	MMP7	NCK2	NFATC3	NFKB1	NRAS	NUP62
F	PDGFA	PDGFB	PDGFRA	PDPK1	PIK3CA	PIK3R1	PIK3R2	PLAT	PLCG1	PPP2CA	PRKCA	PTEN
G	RAF1	RAF1A	RASA1	RHOA	RPS6KA5	RPS6KB1	SHC1	SRC	STAT1	STAT3	STAT5A	TP53
H	ACTB	B2M	GAPDH	HPRT1	RPLP0	HGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Hs.728857	NM_005722	ACTR2	ARP2 actin-related protein 2 homolog (yeast)
A02	Hs.525622	NM_005163	AKT1	V-akt murine thymoma viral oncogene homolog 1
A03	Hs.631535	NM_001626	AKT2	V-akt murine thymoma viral oncogene homolog 2
A04	Hs.498292	NM_005465	AKT3	V-akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma)
A05	Hs.446641	NM_001654	ARAF	V-raf murine sarcoma 3611 viral oncogene homolog
A06	Hs.648565	NM_005171	ATF1	Activating transcription factor 1
A07	Hs.592510	NM_001880	ATF2	Activating transcription factor 2
A08	Hs.370254	NM_004322	BAD	BCL2-associated agonist of cell death
A09	Hs.479747	NM_014567	BCAR1	Breast cancer anti-estrogen resistance 1
A10	Hs.150749	NM_000633	BCL2	B-cell CLL/lymphoma 2
A11	Hs.550061	NM_004333	BRAF	V-raf murine sarcoma viral oncogene homolog B1
A12	Hs.141125	NM_004346	CASP3	Caspase 3, apoptosis-related cysteine peptidase
B01	Hs.329502	NM_001229	CASP9	Caspase 9, apoptosis-related cysteine peptidase
B02	Hs.504096	NM_005188	CBL	Cas-Br-M (murine) ecotropic retroviral transforming sequence
B03	Hs.523852	NM_053056	CCND1	Cyclin D1
B04	Hs.198998	NM_001278	CHUK	Conserved helix-loop-helix ubiquitous kinase
B05	Hs.172928	NM_000088	COL1A1	Collagen, type I, alpha 1
B06	Hs.516646	NM_004379	CREB1	CAMP responsive element binding protein 1
B07	Hs.644056	NM_001895	CSNK2A1	Casein kinase 2, alpha 1 polypeptide
B08	Hs.73527	NM_001320	CSNK2B	Casein kinase 2, beta polypeptide
B09	Hs.171695	NM_004417	DUSP1	Dual specificity phosphatase 1
B10	Hs.298654	NM_001946	DUSP6	Dual specificity phosphatase 6
B11	Hs.419815	NM_001963	EGF	Epidermal growth factor
B12	Hs.488293	NM_005228	EGFR	Epidermal growth factor receptor
C01	Hs.326035	NM_001964	EGR1	Early growth response 1
C02	Hs.249718	NM_001968	EIF4E	Eukaryotic translation initiation factor 4E
C03	Hs.181128	NM_005229	ELK1	ELK1, member of ETS oncogene family
C04	Hs.591160	NM_004447	EPS8	Epidermal growth factor receptor pathway substrate 8
C05	Hs.2007	NM_000639	FASLG	Fas ligand (TNF superfamily, member 6)
C06	Hs.203717	NM_002026	FN1	Fibronectin 1
C07	Hs.728789	NM_005252	FOS	FBJ murine osteosarcoma viral oncogene homolog
C08	Hs.220950	NM_001455	FOXO3	Forkhead box O3
C09	Hs.80720	NM_002039	GAB1	GRB2-associated binding protein 1
C10	Hs.444356	NM_002086	GRB2	Growth factor receptor-bound protein 2
C11	Hs.466828	NM_019884	GSK3A	Glycogen synthase kinase 3 alpha
C12	Hs.445733	NM_002093	GSK3B	Glycogen synthase kinase 3 beta
D01	Hs.799	NM_001945	HBEGF	Heparin-binding EGF-like growth factor
D02	Hs.37003	NM_005343	HRAS	V-Ha-ras Harvey rat sarcoma viral oncogene homolog
D03	Hs.597664	NM_001556	IKKB	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase beta
D04	Hs.89679	NM_000586	IL2	Interleukin 2
D05	Hs.207538	NM_002227	JAK1	Janus kinase 1
D06	Hs.714791	NM_002228	JUN	Jun proto-oncogene
D07	Hs.505033	NM_004985	KRAS	V-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog
D08	Hs.36	NM_000595	LTA	Lymphotoxin alpha (TNF superfamily, member 1)
D09	Hs.145442	NM_002755	MAP2K1	Mitogen-activated protein kinase kinase 1

Position	UniGene	GenBank	Symbol	Description
D10	Hs.514681	NM_003010	MAP2K4	Mitogen-activated protein kinase kinase 4
D11	Hs.531754	NM_145185	MAP2K7	Mitogen-activated protein kinase kinase 7
D12	Hs.145605	NM_006609	MAP3K2	Mitogen-activated protein kinase kinase kinase 2
E01	Hs.431850	NM_002745	MAPK1	Mitogen-activated protein kinase 1
E02	Hs.125503	NM_002753	MAPK10	Mitogen-activated protein kinase 10
E03	Hs.861	NM_002746	MAPK3	Mitogen-activated protein kinase 3
E04	Hs.138211	NM_002750	MAPK8	Mitogen-activated protein kinase 8
E05	Hs.484371	NM_002752	MAPK9	Mitogen-activated protein kinase 9
E06	Hs.371594	NM_003684	MKNK1	MAP kinase interacting serine/threonine kinase 1
E07	Hs.2256	NM_002423	MMP7	Matrix metalloproteinase 7 (matrilysin, uterine)
E08	Hs.529244	NM_003581	NCK2	NCK adaptor protein 2
E09	Hs.632209	NM_004555	NFATC3	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 3
E10	Hs.654408	NM_003998	NFKB1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
E11	Hs.486502	NM_002524	NRAS	Neuroblastoma RAS viral (v-ras) oncogene homolog
E12	Hs.467133	NM_012346	NUP62	Nucleoporin 62kDa
F01	Hs.535898	NM_002607	PDGFA	Platelet-derived growth factor alpha polypeptide
F02	Hs.1976	NM_002608	PDGFB	Platelet-derived growth factor beta polypeptide
F03	Hs.74615	NM_006206	PDGFRA	Platelet-derived growth factor receptor, alpha polypeptide
F04	Hs.459691	NM_002613	PDPK1	3-phosphoinositide dependent protein kinase-1
F05	Hs.553498	NM_006218	PIK3CA	Phosphoinositide-3-kinase, catalytic, alpha polypeptide
F06	Hs.132225	NM_181504	PIK3R1	Phosphoinositide-3-kinase, regulatory subunit 1 (alpha)
F07	Hs.371344	NM_005027	PIK3R2	Phosphoinositide-3-kinase, regulatory subunit 2 (beta)
F08	Hs.491582	NM_000930	PLAT	Plasminogen activator, tissue
F09	Hs.268177	NM_002660	PLCG1	Phospholipase C, gamma 1
F10	Hs.483408	NM_002715	PPP2CA	Protein phosphatase 2, catalytic subunit, alpha isozyme
F11	Hs.531704	NM_002737	PRKA	Protein kinase C, alpha
F12	Hs.500466	NM_000314	PTEN	Phosphatase and tensin homolog
G01	Hs.159130	NM_002880	RAF1	V-raf-1 murine leukemia viral oncogene homolog 1
G02	Hs.190334	NM_002884	RAP1A	RAP1A, member of RAS oncogene family
G03	Hs.664080	NM_002890	RASA1	RAS p21 protein activator (GTPase activating protein) 1
G04	Hs.247077	NM_001664	RHOA	Ras homolog gene family, member A
G05	Hs.510225	NM_004755	RPS6KA5	Ribosomal protein S6 kinase, 90kDa, polypeptide 5
G06	Hs.463642	NM_003161	RPS6KB1	Ribosomal protein S6 kinase, 70kDa, polypeptide 1
G07	Hs.433795	NM_003029	SHC1	SHC (Src homology 2 domain containing) transforming protein 1
G08	Hs.195659	NM_005417	SRC	V-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (avian)
G09	Hs.642990	NM_007315	STAT1	Signal transducer and activator of transcription 1, 91kDa
G10	Hs.463059	NM_003150	STAT3	Signal transducer and activator of transcription 3 (acute-phase response factor)
G11	Hs.437058	NM_003152	STAT5A	Signal transducer and activator of transcription 5A
G12	Hs.654481	NM_000546	TP53	Tumor protein p53
H01	Hs.520640	NM_001101	ACTB	Actin, beta
H02	Hs.534255	NM_004048	B2M	Beta-2-microglobulin
H03	Hs.592355	NM_002046	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase
H04	Hs.412707	NM_000194	HPRT1	Hypoxanthine phosphoribosyltransferase 1
H05	Hs.546285	NM_001002	RPLP0	Ribosomal protein, large, P0
H06	N/A	SA_00105	HGDC	Human 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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