

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

## Human EGF / PDGF Signaling Pathway

Cat. no. 330231 PAHS-040ZR

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 Human EGF / PDGF Signaling RT<sup>2</sup> 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 *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.



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## 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	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	IKBKB	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
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

Position	UniGene	GenBank	Symbol	Description
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	PRKCA	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, 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 <sup>™</sup> 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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