

RT² Profiler PCR Array (Rotor-Gene[®] Format)

Rat EGF / PDGF Signaling Pathway

Cat. no. 330231 PARN-040ZR

For pathway expression analysis

Format	For use with the following real-time cyclers
RT ² Profiler PCR Array, Format R	Rotor-Gene Q, other Rotor-Gene cyclers

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 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 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

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: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Rn.102249	NM_001009268	Acr2	ARP2 actin-related protein 2 homolog (yeast)
A02	Rn.11422	NM_033230	Akt1	V-akt murine thymoma viral oncogene homolog 1
A03	Rn.87066	NM_017093	Akt2	V-akt murine thymoma viral oncogene homolog 2
A04	Rn.10506	NM_031575	Akt3	V-akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma)
A05	Rn.1714	NM_022532	Araf	V-raf murine sarcoma 3611 viral oncogene homolog
A06	Rn.105304	NM_001100895	Atf1	Activating transcription factor 1
A07	Rn.9825	NM_031018	Atf2	Activating transcription factor 2
A08	Rn.36696	NM_022698	Bad	BCL2-associated agonist of cell death
A09	Rn.40101	NM_012931	Bcar1	Breast cancer anti-estrogen resistance 1
A10	Rn.9996	NM_016993	Bcl2	B-cell CLL/lymphoma 2
A11	Rn.205813	XM_231692	Braf	V-raf murine sarcoma viral oncogene homolog B1
A12	Rn.10562	NM_012922	Casp3	Caspase 3
B01	Rn.32199	NM_031632	Casp9	Caspase 9, apoptosis-related cysteine peptidase
B02	Rn.21799	NM_133601	Cblb	Cas-Br-M (murine) ecotropic retroviral transforming sequence b
B03	Rn.22279	NM_171992	Ccnd1	Cyclin D1
B04	Rn.23019	NM_001107588	Chuk	Conserved helix-loop-helix ubiquitous kinase
B05	Rn.2953	NM_053304	Col1a1	Collagen, type I, alpha 1
B06	Rn.90061	NM_031017	Creb1	CAMP responsive element binding protein 1
B07	Rn.4231	NM_053824	Csnk2a1	Casein kinase 2, alpha 1 polypeptide
B08	Rn.137692	NM_031021	Csnk2b	Casein kinase 2, beta polypeptide
B09	Rn.98260	NM_053769	Dusp1	Dual specificity phosphatase 1
B10	Rn.4313	NM_053883	Dusp6	Dual specificity phosphatase 6
B11	Rn.6075	NM_012842	Egf	Epidermal growth factor
B12	Rn.37227	NM_031507	Egfr	Epidermal growth factor receptor
C01	Rn.9096	NM_012551	Egr1	Early growth response 1
C02	Rn.11275	NM_053974	Eif4e	Eukaryotic translation initiation factor 4E
C03	Rn.123609	XM_232499	Eps8	Epidermal growth factor receptor pathway substrate 8
C04	Rn.9725	NM_012908	Faslg	Fas ligand (TNF superfamily, member 6)
C05	Rn.1604	NM_019143	Fn1	Fibronectin 1
C06	Rn.103750	NM_022197	Fos	FBJ osteosarcoma oncogene
C07	Rn.24593	NM_001106395	Foxo3	Forkhead box O3
C08	Rn.1725	NM_001108444	Gab1	GRB2-associated binding protein 1
C09	Rn.3360	NM_030846	Grb2	Growth factor receptor bound protein 2
C10	Rn.36807	NM_017344	Gsk3a	Glycogen synthase kinase 3 alpha
C11	Rn.10426	NM_032080	Gsk3b	Glycogen synthase kinase 3 beta
C12	Rn.10148	NM_012945	Hbegf	Heparin-binding EGF-like growth factor
D01	Rn.102180	NM_001098241	Hras	Harvey rat sarcoma virus oncogene
D02	Rn.19222	NM_053355	Ikbbk	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase beta
D03	Rn.9871	NM_053836	Il2	Interleukin 2
D04	Rn.90191	NM_053466	Jak1	Janus kinase 1
D05	Rn.93714	NM_021835	Jun	Jun oncogene
D06	Rn.30029	NM_145095	Kcnh8	Potassium voltage-gated channel, subfamily H (eag-related), member 8
D07	Rn.24554	NM_031515	Kras	V-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog
D08	Rn.160577	NM_080769	Lta	Lymphotoxin alpha (TNF superfamily, member 1)
D09	Rn.5850	NM_031643	Map2k1	Mitogen activated protein kinase kinase 1
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 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

Position	UniGene	GenBank	Symbol	Description
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 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.

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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