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

Rat Growth Factors

Cat. no. 330231 PARN-041ZA

For pathway expression analysis

Format	For use with the following real-time cyclers
RT² 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
RT² Profiler PCR Array, Format C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)
RT² Profiler PCR Array, Format D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®
RT² Profiler PCR Array, Format E	Applied Biosystems models 7900HT (384-well block), ViiA 7 (384-well block); Bio-Rad CFX384™
RT² Profiler PCR Array, Format F	Roche® LightCycler® 480 (96-well block)
RT² Profiler PCR Array, Format G	Roche LightCycler 480 (384-well block)
RT² Profiler PCR Array, Format H	Fluidigm® BioMark™

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Description

The Rat Growth Factors RT² Profiler PCR Array profiles the expression of 84 genes related to growth factors. Growth factors play a vital role in various normal biological processes such as embryogenesis, wound healing and inflammation. This array contains angiogenic growth factors and regulators of apoptosis. Genes involved in cell differentiation are included as well. Also represented are genes related to embryonic development as well as genes involved in tissue-specific development. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to the growth factors 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	Amh	Artn	Bdnf	Bmp1	Bmp10	Bmp2	Bmp3	Bmp4	Bmp5	Bmp6	Bmp7	Bmp8a
B	Clcf1	Csf1	Csf2	Csf3	Cxcl1	Cxcl12	Egf	Ereg	Fgf1	Fgf10	Fgf11	Fgf13
C	Fgf14	Fgf15	Fgf17	Fgf18	Fgf2	Fgf22	Fgf3	Fgf4	Fgf5	Fgf6	Fgf7	Fgf8
D	Fgf9	Figf	Gdf10	Gdf11	Gdf5	Gdnf	Hgf	Igf1	Igf2	Il11	Il12a	Il18
E	Il1a	Il1b	Il2	Il3	Il4	Il6	Il7	Inha	Inhba	Inhbb	Kitlg	Lefty1
F	Lep	Lif	Mdk	Mstn	Ngf	Nodal	Nrg1	Ntf3	Ntf4	Pdgfa	Pgf	Rabep1
G	S100a6	Spp1	Tdgf1	Tff1	Tgfa	Tgfb1	Tgfb2	Tgfb3	Vegfa	Vegfb	Vegfc	Zfp91
H	Actb	B2m	Hprt1	Ldha	Rplp1	RGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Rn.19121	NM_012902	Amh	Anti-Mullerian hormone
A02	Rn.154711	NM_053397	Artn	Artemin
A03	Rn.11266	NM_012513	Bdnf	Brain-derived neurotrophic factor
A04	Rn.9305	NM_031323	Bmp1	Bone morphogenetic protein 1
A05	Rn.118010	NM_001031824	Bmp10	Bone morphogenetic protein 10
A06	Rn.90931	NM_017178	Bmp2	Bone morphogenetic protein 2
A07	Rn.208979	NM_017105	Bmp3	Bone morphogenetic protein 3
A08	Rn.10318	NM_012827	Bmp4	Bone morphogenetic protein 4
A09	Rn.135799	NM_001108168	Bmp5	Bone morphogenetic protein 5
A10	Rn.40476	NM_013107	Bmp6	Bone morphogenetic protein 6
A11	Rn.18030	XM_342591	Bmp7	Bone morphogenetic protein 7
A12	Rn.126011	NM_001109432	Bmp8a	Bone morphogenetic protein 8a
B01	Rn.130193	NM_207615	Clcf1	Cardiotrophin-like cytokine factor 1
B02	Rn.83632	NM_023981	Csf1	Colony stimulating factor 1 (macrophage)
B03	Rn.44285	XM_340799	Csf2	Colony stimulating factor 2 (granulocyte-macrophage)
B04	Rn.53973	NM_017104	Csf3	Colony stimulating factor 3 (granulocyte)
B05	Rn.10907	NM_030845	Cxcl1	Chemokine (C-X-C motif) ligand 1 (melanoma growth stimulating activity, alpha)
B06	Rn.54439	NM_022177	Cxcl12	Chemokine (C-X-C motif) ligand 12 (stromal cell-derived factor 1)
B07	Rn.6075	NM_012842	Egf	Epidermal growth factor
B08	Rn.42897	NM_021689	Ereg	Epiregulin
B09	Rn.88013	NM_012846	Fgf1	Fibroblast growth factor 1
B10	Rn.44439	NM_012951	Fgf10	Fibroblast growth factor 10
B11	Rn.73083	NM_130816	Fgf11	Fibroblast growth factor 11
B12	Rn.15709	NM_053428	Fgf13	Fibroblast growth factor 13
C01	Rn.44476	NM_022223	Fgf14	Fibroblast growth factor 14
C02	Rn.81230	NM_130753	Fgf15	Fibroblast growth factor 15
C03	Rn.44353	NM_019198	Fgf17	Fibroblast growth factor 17
C04	Rn.44478	NM_019199	Fgf18	Fibroblast growth factor 18
C05	Rn.31808	NM_019305	Fgf2	Fibroblast growth factor 2
C06	Rn.198777	NM_130751	Fgf22	Fibroblast growth factor 22
C07	Rn.81236	NM_130817	Fgf3	Fibroblast growth factor 3
C08	Rn.81223	NM_053809	Fgf4	Fibroblast growth factor 4
C09	Rn.44445	NM_022211	Fgf5	Fibroblast growth factor 5
C10	Rn.81222	NM_131908	Fgf6	Fibroblast growth factor 6
C11	Rn.98842	NM_022182	Fgf7	Fibroblast growth factor 7
C12	Rn.73565	NM_133286	Fgf8	Fibroblast growth factor 8
D01	Rn.25174	NM_012952	Fgf9	Fibroblast growth factor 9
D02	Rn.10796	NM_031761	Figf	C-fos induced growth factor
D03	Rn.8707	NM_024375	Gdf10	Growth differentiation factor 10
D04	Rn.51292	XM_343148	Gdf11	Growth differentiation factor 11
D05	Rn.127822	XM_001066344	Gdf5	Growth differentiation factor 5
D06	Rn.53970	NM_019139	Gdnf	Glial cell derived neurotrophic factor
D07	Rn.10468	NM_017017	Hgf	Hepatocyte growth factor
D08	Rn.6282	NM_178866	Igf1	Insulin-like growth factor 1
D09	Rn.118681	NM_031511	Igf2	Insulin-like growth factor 2

Position	UniGene	GenBank	Symbol	Description
D10	Rn.198483	NM_133519	Il11	Interleukin 11
D11	Rn.207199	NM_053390	Il12a	Interleukin 12a
D12	Rn.11118	NM_019165	Il18	Interleukin 18
E01	Rn.12300	NM_017019	Il1a	Interleukin 1 alpha
E02	Rn.9869	NM_031512	Il1b	Interleukin 1 beta
E03	Rn.9871	NM_053836	Il2	Interleukin 2
E04	Rn.10652	NM_031513	Il3	Interleukin 3
E05	Rn.108255	NM_201270	Il4	Interleukin 4
E06	Rn.9873	NM_012589	Il6	Interleukin 6
E07	Rn.10793	NM_013110	Il7	Interleukin 7
E08	Rn.8831	NM_012590	Inha	Inhibin alpha
E09	Rn.9874	NM_017128	Inhba	Inhibin beta-A
E10	Rn.35074	NM_080771	Inhbb	Inhibin beta-B
E11	Rn.44216	NM_021843	Kitlg	KIT ligand
E12	Rn.218667	NM_001109080	Lefty1	Left right determination factor 1
F01	Rn.44444	NM_013076	Lep	Leptin
F02	Rn.44379	NM_022196	Lif	Leukemia inhibitory factor
F03	Rn.17447	NM_030859	Mdk	Midkine
F04	Rn.44460	NM_019151	Mstn	Myostatin
F05	Rn.22168	XM_227525	Ngf	Nerve growth factor (beta polypeptide)
F06	Rn.218528	NM_001106394	Nodal	Nodal homolog (mouse)
F07	Rn.37438	NM_031588	Nrg1	Neuregulin 1
F08	Rn.9715	NM_031073	Ntf3	Neurotrophin 3
F09	Rn.44225	NM_013184	Ntf4	Neurotrophin 4
F10	Rn.10999	NM_012801	Pdgfa	Platelet-derived growth factor alpha polypeptide
F11	Rn.6960	NM_053595	Pgf	Placental growth factor
F12	Rn.5876	NM_019124	Rabep1	Rabaptin, RAB GTPase binding effector protein 1
G01	Rn.3233	NM_053485	S100a6	S100 calcium binding protein A6
G02	Rn.8871	NM_012881	Spp1	Secreted phosphoprotein 1
G03	N/A	XM_001056317	Tdgf1	Teratocarcinoma-derived growth factor 1
G04	Rn.10715	NM_057129	Tff1	Trefoil factor 1
G05	Rn.9952	NM_012671	Tgfa	Transforming growth factor alpha
G06	Rn.40136	NM_021578	Tgfb1	Transforming growth factor, beta 1
G07	Rn.24539	NM_031131	Tgfb2	Transforming growth factor, beta 2
G08	Rn.7018	NM_013174	Tgfb3	Transforming growth factor, beta 3
G09	Rn.1923	NM_031836	Vegfa	Vascular endothelial growth factor A
G10	Rn.198550	NM_053549	Vegfb	Vascular endothelial growth factor B
G11	Rn.6913	NM_053653	Vegfc	Vascular endothelial growth factor C
G12	Rn.1772	NM_001169120	Zfp91	Zinc finger protein 91
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.
RT² First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT² 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
RT² 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
RT² 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.

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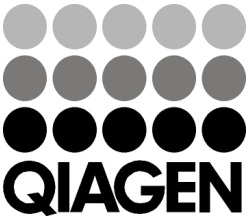

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