RT² Profiler PCR Array (Rotor-Gene® Format)

Rat Wound Healing

Cat. no. 330231 PARN-121ZR

For pathway expression analysis

Format	For use with the following real-time cyclers
RT² Profiler PCR Array, Format R	Rotor-Gene Q, other Rotor-Gene cyclers

Description

The Rat Wound Healing RT² Profiler PCR Array profiles the expression of 84 key genes central to the wound healing response. Wound healing progresses via three overlapping phases: inflammation, granulation and tissue remodeling. After cutaneous injury, a blood clot forms, and inflammatory cells infiltrate the wound, secreting cytokines and growth factors to promote the inflammation phase. During the granulation phase, fibroblasts and other cells differentiate into myofibroblasts, which deposit extracellular matrix (ECM) proteins. Simultaneously, angiogenesis occurs, and keratinocytes proliferate and migrate to close the wound. In the final tissue remodeling phase, apoptosis eliminates myofibroblasts and extraneous blood vessels, and the ECM is remodeled to resemble the original tissue. Dysregulation of this last tissue remodeling phase leads to fibrosis. This array contains genes important for each of the three phases of wound healing, including ECM remodeling factors, inflammatory cytokines and chemokines, as well as growth factors and major signaling molecules. Using real-time PCR, you can easily and reliably analyze the expression of a focused panel of genes involved in wound healing, tissue injury and repair with this array.

For further details, consult the *RT² Profiler PCR Array Handbook*.

Shipping and storage

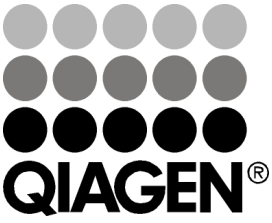
RT² Profiler PCR Arrays in the Rotor-Gene format are shipped at ambient temperature, on dry ice, or blue ice packs depending on destination and accompanying products.

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.195319	NM_031004	Acta2	Smooth muscle alpha-actin
A02	Rn.3114	NM_019183	Actc1	Actin, alpha, cardiac muscle 1
A03	Rn.161953	NM_053546	Angpt1	Angiopoietin 1
A04	Rn.137780	NM_001105822	Ccl12	Chemokine (C-C motif) ligand 12
A05	Rn.26815	NM_001007612	Ccl7	Chemokine (C-C motif) ligand 7
A06	Rn.44218	NM_053353	Cd40lg	CD40 ligand
A07	Rn.1303	NM_031334	Cdh1	Cadherin 1
A08	Rn.99441	NM_001130548	Col14a1	Collagen, type XIV, alpha 1
A09	Rn.2953	NM_053304	Col1a1	Collagen, type I, alpha 1
A10	Rn.107239	NM_053356	Col1a2	Collagen, type I, alpha 2
A11	Rn.3247	NM_032085	Col3a1	Collagen, type III, alpha 1
A12	Rn.53801	NM_001135009	Col4a1	Collagen, type IV, alpha 1
B01	Rn.121139	NM_001135759	Col4a3	Collagen, type IV, alpha 3
B02	Rn.117	NM_134452	Col5a1	Collagen, type V, alpha 1
B03	Rn.2875	NM_053488	Col5a2	Collagen, type V, alpha 2
B04	Rn.38654	NM_021760	Col5a3	Collagen, type V, alpha 3
B05	Rn.44285	XM_340799	Csf2	Colony stimulating factor 2 (granulocyte-macrophage)
B06	Rn.53973	NM_017104	Csf3	Colony stimulating factor 3 (granulocyte)
B07	Rn.17145	NM_022266	Ctgf	Connective tissue growth factor
B08	Rn.112601	NM_053357	Ctnnb1	Catenin (cadherin associated protein), beta 1
B09	Rn.103332	NM_001106041	Ctsg	Cathepsin G
B10	Rn.5598	NM_031560	Ctsk	Cathepsin K
B11	Rn.1294	NM_013156	Ctsl1	Cathepsin L1
B12	Rn.10907	NM_030845	Cxcl1	Chemokine (C-X-C motif) ligand 1 (melanoma growth stimulating activity, alpha)
C01	Rn.13664	NM_182952	Cxcl11	Chemokine (C-X-C motif) ligand 11
C02	Rn.10525	NM_138522	Cxcl3	Chemokine (C-X-C motif) ligand 3
C03	Rn.44449	NM_022214	Cxcl5	Chemokine (C-X-C motif) ligand 5
C04	Rn.6075	NM_012842	Egf	Epidermal growth factor
C05	Rn.37227	NM_031507	Egfr	Epidermal growth factor receptor
C06	Rn.42925	NM_021698	F13a1	Coagulation factor XIII, A1 polypeptide
C07	Rn.9980	NM_013057	F3	Coagulation factor III (thromboplastin, tissue factor)
C08	Rn.98846	NM_001008724	Fga	Fibrinogen alpha chain
C09	Rn.44439	NM_012951	Fgf10	Fibroblast growth factor 10
C10	Rn.31808	NM_019305	Fgf2	Fibroblast growth factor 2
C11	Rn.98842	NM_022182	Fgf7	Fibroblast growth factor 7
C12	Rn.10148	NM_012945	Hbegf	Heparin-binding EGF-like growth factor
D01	Rn.10468	NM_017017	Hgf	Hepatocyte growth factor
D02	Rn.10795	NM_138880	Ifng	Interferon gamma
D03	Rn.6282	NM_178866	Igf1	Insulin-like growth factor 1
D04	Rn.9868	NM_012854	Il10	Interleukin 10
D05	Rn.9869	NM_031512	Il1b	Interleukin 1 beta
D06	Rn.9871	NM_053836	Il2	Interleukin 2
D07	Rn.108255	NM_201270	Il4	Interleukin 4
D08	Rn.9873	NM_012589	Il6	Interleukin 6
D09	Rn.12138	NM_001008725	Il6st	Interleukin 6 signal transducer
D10	Rn.91044	NM_030994	Itga1	Integrin, alpha 1
D11	Rn.83597	XM_345156	Itga2	Integrin, alpha 2
D12	Rn.154664	NM_001108292	Itga3	Integrin, alpha 3
E01	Rn.12704	NM_001107737	Itga4	Integrin, alpha 4
E02	Rn.100796	NM_001108118	Itga5	Integrin, alpha 5 (fibronectin receptor, alpha polypeptide)
E03	Rn.161799	XM_215984	Itga6	Integrin, alpha 6
E04	Rn.23339	NM_001106549	Itgav	Integrin, alpha V
E05	Rn.25733	NM_017022	Itgb1	Integrin, beta 1
E06	Rn.162202	NM_153720	Itgb3	Integrin, beta 3
E07	Rn.16988	NM_147139	Itgb5	Integrin, beta 5
E08	Rn.19828	NM_001004263	Itgb6	Integrin, beta 6
E09	Rn.34914	NM_053842	Mapk1	Mitogen activated protein kinase 1

Position	UniGene	GenBank	Symbol	Description
E10	Rn.2592	NM_017347	Mapk3	Mitogen activated protein kinase 3
E11	Rn.2661	NM_031051	Mif	Macrophage migration inhibitory factor
E12	Rn.79007	NM_001134530	Mmp1a	Matrix metallopeptidase 1a (interstitial collagenase)
F01	Rn.6422	NM_031054	Mmp2	Matrix metallopeptidase 2
F02	Rn.10282	NM_012864	Mmp7	Matrix metallopeptidase 7
F03	Rn.10209	NM_031055	Mmp9	Matrix metallopeptidase 9
F04	Rn.10999	NM_012801	Pdgfa	Platelet-derived growth factor alpha polypeptide
F05	Rn.107102	NM_013151	Plat	Plasminogen activator, tissue
F06	Rn.6064	NM_013085	Plau	Plasminogen activator, urokinase
F07	Rn.82711	NM_017350	Plaur	Plasminogen activator, urokinase receptor
F08	Rn.20178	NM_053491	Plg	Plasminogen
F09	Rn.22158	NM_031606	Pten	Phosphatase and tensin homolog
F10	Rn.44369	NM_017232	Ptgs2	Prostaglandin-endoperoxide synthase 2
F11	Rn.29157	NM_134366	Rac1	Ras-related C3 botulinum toxin substrate 1
F12	Rn.107401	NM_057132	Rhoa	Ras homolog gene family, member A
G01	Rn.29367	NM_012620	Serpine1	Serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1
G02	Rn.10247	NM_012747	Stat3	Signal transducer and activator of transcription 3
G03	Rn.34397	NM_031549	Tagln	Transgelin
G04	Rn.9952	NM_012671	Tgfa	Transforming growth factor alpha
G05	Rn.40136	NM_021578	Tgfb1	Transforming growth factor, beta 1
G06	Rn.9953	NM_017256	Tgfbr3	Transforming growth factor, beta receptor III
G07	Rn.25754	NM_053819	Timp1	TIMP metallopeptidase inhibitor 1
G08	Rn.2275	NM_012675	Tnf	Tumor necrosis factor (TNF superfamily, member 2)
G09	Rn.1923	NM_031836	Vegfa	Vascular endothelial growth factor A
G10	Rn.87493	NM_019156	Vtn	Vitronectin
G11	Rn.63486	NM_031716	Wisp1	WNT1 inducible signaling pathway protein 1
G12	Rn.48749	NM_022631	Wnt5a	Wingless-type MMTV integration site family, member 5A
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 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.

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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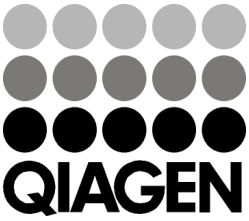

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