

RT² Profiler PCR Array (Rotor-Gene® Format)

Horse Wound Healing

Cat. no. 330231 PAEC-121ZR

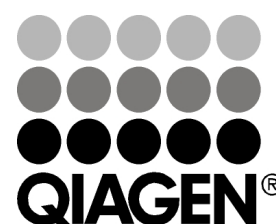
For pathway expression analysis

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 Horse 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 cyclers (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
1	N/A	XM_001503035	ACTA2	Actin, alpha 2, smooth muscle, aorta
2	N/A	XM_001503650	ACTC1	Actin, alpha, cardiac muscle 1
3	N/A	XM_001494946	ANGPT1	Angiopoietin 1
4	Eca.17895	NM_001081931	CCL2	Chemokine (C-C motif) ligand 2
5	N/A	XM_005597581	CCL7	Chemokine (C-C motif) ligand 7
6	N/A	XM_001490011	CD40LG	CD40 ligand-like
7	N/A	XM_001497018	CDH1	Cadherin-1-like
8	Eca.12977	NM_001163870	COL14A1	Collagen, type XIV, alpha 1
9	Eca.21651	XM_005597481	COL1A1	Collagen, type I, alpha 1
10	Eca.21335	XM_001492939	COL1A2	Collagen, type I, alpha 2
11	Eca.21624	XM_001917620	COL3A1	Collagen, type III, alpha 1
12	N/A	XM_005601380	COL4A1	Collagen, type IV, alpha 1
13	Eca.13392	XM_001493855	COL4A3	Collagen, type IV, alpha 3 (Goodpasture antigen)
14	N/A	XM_014736244	COL5A1	Collagen, type V, alpha 1
15	N/A	XM_001501817	COL5A2	Collagen, type V, alpha 2
16	N/A	XM_014741516	COL5A3	Collagen, type V, alpha 3
17	Eca.10972	NM_001081882	CSF2	Colony stimulating factor 2 (granulocyte-macrophage)
18	Eca.426	NM_001081860	CSF3	Colony stimulating factor 3 (granulocyte)
19	N/A	XM_001503316	CTGF	Connective tissue growth factor-like
20	Eca.16809	NM_001122762	CTNNB1	Catenin (cadherin-associated protein), beta 1, 88kDa
21	N/A	XM_005603391	CTSG	Cathepsin G
22	N/A	XM_001490599	CTSK	Cathepsin K-like
23	N/A	XM_001495745	CTSL	Cathepsin L
24	N/A	XM_001494359	CTSV	Cathepsin V
25	Eca.18382	XM_001916175	CXCL1	Chemokine (C-X-C motif) ligand 1 (melanoma growth stimulating activity, alpha)
26	N/A	NM_001278930	CXCL11	Chemokine (C-X-C motif) ligand 11
27	Eca.13036	NM_001143955	CXCL2	Chemokine (C-X-C motif) ligand 2
28	N/A	XM_014737941	EGF	Epidermal growth factor
29	N/A	XM_005609152	EGFR	Epidermal growth factor receptor
30	N/A	XM_001492684	F13A1	Coagulation factor XIII, A1 polypeptide
31	N/A	XM_001491449	F3	Tissue factor-like
32	N/A	XM_001915158	FGA	Fibrinogen alpha chain
33	N/A	XM_001498109	FGF10	Fibroblast growth factor 10-like
34	Eca.12651	NM_001195221	FGF2	Fibroblast growth factor 2 (basic)
35	Eca.12645	NM_001163883	FGF7	Fibroblast growth factor 7
36	N/A	XM_001487849	HGF	Hepatocyte growth factor-like
37	Eca.721	NM_001081949	IFNG	Interferon, gamma
38	Eca.12985	NM_001082498	IGF1	Insulin-like growth factor 1 (somatomedin C)

Position	UniGene	GenBank	Symbol	Description
39	Eca.13090	NM_001082490	IL10	Interleukin 10
40	Eca.13475	NM_001082526	IL1B	Interleukin 1, beta
41	Eca.12635	NM_001085433	IL2	Interleukin 2
42	Eca.11253	NM_001082519	IL4	Interleukin 4
43	Eca.12956	NM_001082496	IL6	Interleukin 6 (interferon, beta 2)
44	N/A	XM_001495796	IL6ST	Interleukin 6 signal transducer (gp130, oncostatin M receptor)
45	Eca.16156	XM_005604280	ITGA1	Integrin, alpha 1
46	N/A	XM_005604279	ITGA2	Integrin, alpha 2 (CD49B, alpha 2 subunit of VLA-2 receptor)
47	N/A	XM_003362405	ITGA3	Integrin, alpha 3 (antigen CD49C, alpha 3 subunit of VLA-3 receptor)
48	N/A	XM_005601620	ITGA4	Integrin, alpha 4 (antigen CD49D, alpha 4 subunit of VLA-4 receptor)
49	N/A	XM_001504571	ITGA5	Integrin, alpha 5 (fibronectin receptor, alpha polypeptide)
50	N/A	XM_005601729	ITGA6	Integrin, alpha 6
51	Eca.16157	XM_005601735	ITGAV	Integrin, alpha V
52	Eca.1720	XM_003364340	ITGB1	Integrin, beta 1 (fibronectin receptor, beta polypeptide, antigen CD29 includes MDF2, MSK12)
53	Eca.12580	NM_001081802	ITGB3	Integrin, beta 3 (platelet glycoprotein IIIa, antigen CD61)
54	N/A	XM_005602108	ITGB5	Integrin, beta 5
55	N/A	XM_001492864	ITGB6	Integrin, beta 6
56	N/A	XM_005612382	MAPK1	Mitogen-activated protein kinase 1
57	N/A	XM_001915525	MAPK3	Mitogen-activated protein kinase 3
58	N/A	XM_001489611	MIF	Macrophage migration inhibitory factor-like
59	Eca.563	NM_001143793	MIP-2BETA	CXCL3
60	Eca.13871	NM_001081847	MMP1	Matrix metalloproteinase 1 (interstitial collagenase)
61	Eca.12657	XM_001493281	MMP2	Matrix metalloproteinase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase)
62	N/A	XM_001498809	MMP7	Matrilysin-like
63	Eca.13628	NM_001111302	MMP9	Matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase)
64	N/A	XM_005598596	PDGFA	Platelet-derived growth factor alpha polypeptide
65	N/A	XM_001489274	PLAT	Plasminogen activator, tissue
66	N/A	XM_001502951	PLAU	Urokinase-type plasminogen activator-like
67	Eca.2157	NM_001163881	PLAUR	Plasminogen activator, urokinase receptor
68	N/A	XM_001500502	PLG	Plasminogen
69	N/A	XM_001917643	PTEN	Phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN-like
70	Eca.3397	NM_001081775	PTGS2	Prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase)
71	N/A	XM_014729779	RAC1	Ras-related C3 botulinum toxin substrate 1 (rho family, small GTP binding protein Rac1)
72	Eca.2435	XM_001497759	RHOA	Transforming protein RhoA-like
73	Eca.12939	XM_001492517	SERPINE1	Serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1
74	Eca.15876	XM_001494631	STAT3	Signal transducer and activator of transcription 3 (acute-phase response factor)
75	Eca.16123	NM_001110134	TAGLN	Transgelin
76	N/A	XM_005599909	TGFA	Transforming growth factor, alpha

Position	UniGene	GenBank	Symbol	Description
77	Eca.6371	NM_001081849	TGFB1	Transforming growth factor, beta 1
78	N/A	XM_014740158	TGFB3	Transforming growth factor beta receptor III
79	Eca.671	NM_001082515	TIMP1	TIMP metalloproteinase inhibitor 1
80	Eca.13019	NM_001081819	TNF	Tumor necrosis factor
81	Eca.12648	NM_001081821	VEGFA	Vascular endothelial growth factor A
82	N/A	XM_001504123	VTN	Vitronectin-like
83	N/A	XM_001498799	WISP1	WNT1-inducible-signaling pathway protein 1-like
84	N/A	XM_014731495	WNT5A	Wingless-type MMTV integration site family member 5A
85	Eca.20971	NM_001081838	ACTB	Actin, beta
86	Eca.13489	NM_001082502	B2M	Beta-2-microglobulin
87	Eca.487	NM_001163856	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase
88	Eca.12727	XM_005614512	HPRT1	Hypoxanthine phosphoribosyltransferase 1
89	N/A	XM_001492042	LOC100056766	60S ribosomal protein L32-like
90	N/A horse	SA_00139	EGDC	Horse Genomic DNA Contamination
91	N/A	SA_00104	RTC	Reverse Transcription Control
92	N/A	SA_00104	RTC	Reverse Transcription Control
93	N/A	SA_00104	RTC	Reverse Transcription Control
94	N/A	SA_00103	PPC	Positive PCR Control
95	N/A	SA_00103	PPC	Positive PCR Control
96	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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