

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

Rabbit Wound Healing

Cat. no. 330231 PANZ-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 Rabbit 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, research studies 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.



Sample & Assay Technologies

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	Ocu.6720	XM_002717998	ACTC1	Actin, alpha, cardiac muscle 1
A02	Ocu.1921	NM_001082294	CCL2	Chemokine (C-C motif) ligand 2
A03	Ocu.2141	NM_001082196	CCL4	Chemokine (C-C motif) ligand 4
A04	N/A	XM_002710753	COL14A1	Collagen, type XIV, alpha 1
A05	Ocu.6518	NM_001195668	COL1A2	Collagen, type I, alpha 2
A06	Ocu.2053	XM_002712620	COL4A3	Collagen, type IV, alpha 3 (Goodpasture antigen)
A07	Ocu.2605	XM_002724221	COL5A1	Collagen, type V, alpha 1
A08	Ocu.2320	NM_001082681	COX-1	Cyclooxygenase-1
A09	Ocu.3361	XM_002714820	CTGF	Connective tissue growth factor
A10	Ocu.3227	XM_002713075	CTNNB1	Catenin (cadherin-associated protein), beta 1, 88kDa
A11	Ocu.6195	NM_001082641	CTSK	Cathepsin K
A12	Ocu.1430	NM_001082330	DCN	Decorin
B01	Ocu.2020	NM_001082291	F3	Coagulation factor III (thromboplastin, tissue factor)
B02	N/A	XM_002716897	FGA	Fibrinogen alpha chain
B03	Ocu.1874	XM_002717238	FGF2	Fibroblast growth factor 2 (basic)
B04	Ocu.7612	NM_0011171257	GMCSF	Granulate-macrophage stimulating factor
B05	Ocu.7547	NM_001168707	HGF	Hepatocyte growth factor (hepapoietin A; scatter factor)
B06	Ocu.2149	NM_001081991	IFNG	Interferon, gamma
B07	Ocu.2125	NM_001082026	IGF1	Insulin-like growth factor 1 (somatomedin C)
B08	Ocu.1796	NM_001082045	IL10	Interleukin 10
B09	Ocu.2080	NM_001101684	IL1A	Interleukin 1, alpha
B10	Ocu.1993	NM_001082201	IL1B	Interleukin 1, beta
B11	Ocu.2461	NM_001163180	IL2	Interleukin 2
B12	Ocu.2462	NM_001163177	IL4	Interleukin 4
C01	Ocu.2447	NM_001082064	IL6	Interleukin 6 (interferon, beta 2)
C02	N/A	XM_002714044	IL6ST	Interleukin 6 signal transducer (gp130, oncostatin M receptor)
C03	Ocu.1938	NM_001082293	IL8	Interleukin 8
C04	N/A	XM_002713967	ITGA1	Integrin, alpha 1
C05	N/A	XM_002712227	ITGA4	Integrin, alpha 4 (antigen CD49D, alpha 4 subunit of VLA-4 receptor)
C06	Ocu.3321	XM_002711037	ITGA5	Integrin, alpha 5 (fibronectin receptor, alpha polypeptide)
C07	Ocu.3337	XM_002712183	ITGA6	Integrin, alpha 6
C08	Ocu.3178	XM_002712329	ITGAV	Integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51)
C09	Ocu.3065	XM_002721189	ITGB1	Integrin, beta 1 (fibronectin receptor, beta polypeptide, antigen CD29 includes MDF2, MSK12)
C10	Ocu.3879	XM_002716419	ITGB5	Integrin, beta 5
C11	N/A	XM_002712210	ITGB6	Integrin, beta 6
C12	Ocu.2439	XM_002713867	LOC100008806	Epidermal growth factor receptor
D01	Ocu.2532	XM_002717184	LOC100008808	Epidermal growth factor
D02	Ocu.2533	XM_002710252	LOC100008809	Heparin-binding epidermal growth factor
D03	Ocu.178	NM_001082232	LOC100009047	Tissue inhibitor of metalloproteinase 1
D04	Ocu.7188	XM_002723106	LOC100101584	Urokinase-type plasminogen activator receptor
D05	Ocu.7187	XM_002713968	LOC100101621	Alpha 2 integrin
D06	Ocu.1647	XM_002716439	LOC100337822	Phosphoinositide-3-kinase, catalytic, alpha polypeptide
D07	N/A	XM_002722561	LOC100338701	Macrophage migration inhibitory factor
D08	N/A	XM_002716597	LOC100340081	Procollagen-lysine, 2-oxoglutarate 5-dioxygenase 2
D09	N/A	XM_002722939	LOC100342500	Growth factor receptor-bound protein 2
			LOC100342	

Position	UniGene	GenBank	Symbol	Description
D10	N/A	XM_002714023	802	Fibroblast growth factor 10
D11	N/A	XM_002715496	LOC100342897	Transforming growth factor, beta receptor III-like
D12	N/A	XM_002722844	LOC100345384	Collagen, type V, alpha 3-like
E01	N/A	XM_002719731	LOC100347345	Mitogen-activated protein kinase 1-like
E02	N/A	XM_002723446	LOC100347455	PTK2 protein tyrosine kinase 2
E03	N/A	XM_002711889	LOC100348561	Mitogen activated protein kinase 3-like
E04	Ocu.7115	XM_002708816	LOC100349469	Dickkopf homolog 3-like
E05	N/A	XM_002714904	LOC100352167	WNT1 inducible signaling pathway protein 3
E06	N/A	XM_002724293	LOC100352388	Platelet-derived growth factor subunit A-like
E07	N/A	XM_002713770	LOC100354786	Inhibin beta A
E08	N/A	XM_002717112	LOC100354804	Chemokine (C-X-C motif) ligand 2-like
E09	N/A	XM_002719135	LOC100356652	Colony stimulating factor 3-like
E10	N/A	NM_001256781	LOC100358388	CD40 ligand
E11	N/A	XM_002718493	LOC100358716	Phosphatase and tensin homolog
E12	N/A	XM_002711389	LOC100358772	Platelet-derived growth factor beta
F01	N/A	NM_001245923	LOC100358914	Leukemia inhibitory factor (cholinergic differentiation factor)
F02	Ocu.2695	NM_001171139	MMP1	Matrix metalloproteinase 1 (interstitial collagenase)
F03	Ocu.6274	NM_001082209	MMP2	Matrix metalloproteinase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase)
F04	Ocu.1964	NM_001082280	MMP3	Matrix metalloproteinase 3 (stromelysin 1, progelatinase)
F05	Ocu.1773	NM_001082203	MMP9	Matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase)
F06	Ocu.2693	NM_001082769	PLAT	Plasminogen activator, tissue
F07	Ocu.2313	NM_001082011	PLAU	Plasminogen activator, urokinase
F08	N/A	XM_002714966	PLG	Plasminogen
F09	Ocu.2173	NM_001082388	PTGS2	Prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase)
F10	Ocu.3176	XM_002708537	RAC1	Ras-related C3 botulinum toxin substrate 1 (rho family, small GTP binding protein Rac1)
F11	Ocu.6243	XM_002715765	RHOA	Ras homolog family member A
F12	Ocu.2301	XM_002722823	SERPINE1	Serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1
G01	N/A	XM_002719395	STAT3	Signal transducer and activator of transcription 3 (acute-phase response factor)
G02	Ocu.6289	XM_002708381	TAGLN	Transgelin
G03	Ocu.2133	XM_002722312	TGFB1	Transforming growth factor, beta 1
G04	N/A	XM_002719635	TGFB3	Transforming growth factor, beta 3
G05	N/A	XM_002716805	TIAM1	T-cell lymphoma invasion and metastasis 1
G06	Ocu.3357	NM_001082732	TLR4	Toll-like receptor 4
G07	Ocu.7534	XM_002720513	TNC	Tenascin C
G08	Ocu.1971	NM_001082263	TNF	Tumor necrosis factor
G09	Ocu.2339	XM_002714697	VEGFA	Vascular endothelial growth factor A
G10	Ocu.1882	NM_001082292	VTN	Vitronectin
G11	Ocu.7729	NM_001171042	WNT2	Wingless-type MMTV integration site family member 2
G12	Ocu.5751	NM_001082665	WNT-5A	WNT-5A protein
H01	Ocu.2090	NM_001101682	ACTA2	Actin, alpha 2, smooth muscle, aorta
H02	Ocu.734	NM_001101683	ACTB	Actin, beta
H03	Ocu.87	NM_001082253	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase
H04	Ocu.1108	NM_001082277	LDHA	Lactate dehydrogenase A
H05	N/A	XM_002723383	LOC100346936	Non-POU domain containing, octamer-binding-like
H06	N/A	SA_00511	NGDC	Rabbit 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

Position	UniGene	GenBank	Symbol	Description
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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