

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

Mouse Osmotic Stress

Cat. no. 330231 PAMM-150ZR

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 Mouse Cytokines & Chemokines RT² Profiler PCR Array profiles the expression of 84 key secreted proteins central to the immune response and other functions. Cytokines, small signaling proteins secreted primarily by immune cells, activate inter- and intracellular signaling during immune responses. Historically, cytokines were functionally separated into 2 families: lymphokines/interleukins and chemokines. All cytokines released by immune cells were called lymphokines/interleukins, whereas chemotactic cytokines were called chemokines. However, these family descriptions are not longer accurate because some growth factors and hormones also exhibit cellular effects very similar to cytokine family members. In addition to immune cells, many different cell types express cytokines to stimulate immune response, inflammation, and other processes. The ultimate effect of a cytokine release depends on the activated cell type expressing the specific cytokine receptor. This array includes both families of common cytokines as well as growth factors and hormones with cytokine-like properties. The results of this array should augment understanding of immune response in a variety of cell types. Using real-time PCR, research studies can easily and reliably analyze the expression of a focused panel of key cytokines and chemokines 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	Mm.3969	NM_009605	Adipoq	Adiponectin, C1Q and collagen domain containing
A02	Mm.103205	NM_007553	Bmp2	Bone morphogenetic protein 2
A03	Mm.6813	NM_007554	Bmp4	Bone morphogenetic protein 4
A04	Mm.385759	NM_007556	Bmp6	Bone morphogenetic protein 6
A05	Mm.595	NM_007557	Bmp7	Bone morphogenetic protein 7
A06	Mm.1283	NM_011329	Ccl1	Chemokine (C-C motif) ligand 1
A07	Mm.4686	NM_011330	Ccl11	Chemokine (C-C motif) ligand 11
A08	Mm.867	NM_011331	Ccl12	Chemokine (C-C motif) ligand 12
A09	Mm.41988	NM_011332	Ccl17	Chemokine (C-C motif) ligand 17
A10	Mm.424740	NM_011888	Ccl19	Chemokine (C-C motif) ligand 19
A11	Mm.290320	NM_011333	Ccl2	Chemokine (C-C motif) ligand 2
A12	Mm.116739	NM_016960	Ccl20	Chemokine (C-C motif) ligand 20
B01	Mm.12895	NM_009137	Ccl22	Chemokine (C-C motif) ligand 22
B02	Mm.31505	NM_019577	Ccl24	Chemokine (C-C motif) ligand 24
B03	Mm.1282	NM_011337	Ccl3	Chemokine (C-C motif) ligand 3
B04	Mm.244263	NM_013652	Ccl4	Chemokine (C-C motif) ligand 4
B05	Mm.284248	NM_013653	Ccl5	Chemokine (C-C motif) ligand 5
B06	Mm.341574	NM_013654	Ccl7	Chemokine (C-C motif) ligand 7
B07	Mm.4861	NM_011616	Cd40lg	CD40 ligand
B08	Mm.42228	NM_011617	Cd70	CD70 antigen
B09	Mm.290924	NM_170786	Cntf	Ciliary neurotrophic factor
B10	Mm.795	NM_007778	Csf1	Colony stimulating factor 1 (macrophage)
B11	Mm.4922	NM_009969	Csf2	Colony stimulating factor 2 (granulocyte-macrophage)
B12	Mm.1238	NM_009971	Csf3	Colony stimulating factor 3 (granulocyte)
C01	Mm.389954	NM_007795	Ctfl	Cardiotrophin 1
C02	Mm.103711	NM_009142	Cx3cl1	Chemokine (C-X3-C motif) ligand 1
C03	Mm.21013	NM_008176	Cxcl1	Chemokine (C-X-C motif) ligand 1
C04	Mm.877	NM_021274	Cxcl10	Chemokine (C-X-C motif) ligand 10
C05	Mm.131723	NM_019494	Cxcl11	Chemokine (C-X-C motif) ligand 11
C06	Mm.303231	NM_021704	Cxcl12	Chemokine (C-X-C motif) ligand 12
C07	Mm.10116	NM_018866	Cxcl13	Chemokine (C-X-C motif) ligand 13
C08	Mm.425692	NM_023158	Cxcl16	Chemokine (C-X-C motif) ligand 16
C09	Mm.244289	NM_203320	Cxcl3	Chemokine (C-X-C motif) ligand 3
C10	Mm.4660	NM_009141	Cxcl5	Chemokine (C-X-C motif) ligand 5
C11	Mm.766	NM_008599	Cxcl9	Chemokine (C-X-C motif) ligand 9
C12	Mm.3355	NM_010177	FasL	Fas ligand (TNF superfamily, member 6)
D01	Mm.589	NM_008155	Gpi1	Glucose phosphate isomerase 1
D02	Mm.2168	NM_010406	Hc	Hemolytic complement
D03	Mm.14091	NM_010503	Ifna2	Interferon alpha 2
D04	Mm.240327	NM_008337	Ifng	Interferon gamma
D05	Mm.874	NM_010548	Il10	Interleukin 10
D06	Mm.35814	NM_008350	Il11	Interleukin 11
D07	Mm.103783	NM_008351	Il12a	Interleukin 12A
D08	Mm.239707	NM_008352	Il12b	Interleukin 12B
D09	Mm.1284	NM_008355	Il13	Interleukin 13
D10	Mm.4392	NM_008357	Il15	Interleukin 15
D11	Mm.10137	NM_010551	Il16	Interleukin 16
D12	Mm.5419	NM_010552	Il17a	Interleukin 17A
E01	Mm.222807	NM_145856	Il17f	Interleukin 17F
E02	Mm.1410	NM_008360	Il18	Interleukin 18
E03	Mm.15534	NM_010554	Il1a	Interleukin 1 alpha
E04	Mm.222830	NM_008361	Il1b	Interleukin 1 beta
E05	Mm.882	NM_031167	Il1rn	Interleukin 1 receptor antagonist
E06	Mm.14190	NM_008366	Il2	Interleukin 2
E07	Mm.157689	NM_021782	Il21	Interleukin 21
E08	Mm.103585	NM_016971	Il22	Interleukin 22
E09	Mm.125482	NM_031252	Il23a	Interleukin 23, alpha subunit p19

Position	UniGene	GenBank	Symbol	Description
E10	Mm.196691	NM_053095	Il24	Interleukin 24
E11	Mm.222632	NM_145636	Il27	Interleukin 27
E12	Mm.983	NM_010556	Il3	Interleukin 3
F01	Mm.276360	NM_021283	Il4	Interleukin 4
F02	Mm.4461	NM_010558	Il5	Interleukin 5
F03	Mm.1019	NM_031168	Il6	Interleukin 6
F04	Mm.3825	NM_008371	Il7	Interleukin 7
F05	Mm.3006	NM_008373	Il9	Interleukin 9
F06	Mm.4964	NM_008501	Lif	Leukemia inhibitory factor
F07	Mm.87787	NM_010735	Lta	Lymphotoxin A
F08	Mm.1715	NM_008518	Ltb	Lymphotoxin B
F09	Mm.2326	NM_010798	Mif	Macrophage migration inhibitory factor
F10	Mm.3514	NM_010834	Mstn	Myostatin
F11	Mm.57195	NM_013611	Nodal	Nodal
F12	Mm.131422	NM_001013365	Osm	Oncostatin M
G01	Mm.332490	NM_019932	Pf4	Platelet factor 4
G02	Mm.293614	NM_023785	Ppbbp	Pro-platelet basic protein
G03	Mm.288474	NM_009263	Spp1	Secreted phosphoprotein 1
G04	Mm.18213	NM_009367	Tgfb2	Transforming growth factor, beta 2
G05	Mm.3943	NM_009379	Thpo	Thrombopoietin
G06	Mm.1293	NM_013693	Tnf	Tumor necrosis factor
G07	Mm.15383	NM_008764	Tnfrsf11b	Tumor necrosis factor receptor superfamily, member 11b (osteoprotegerin)
G08	Mm.1062	NM_009425	Tnfsf10	Tumor necrosis factor (ligand) superfamily, member 10
G09	Mm.249221	NM_011613	Tnfsf11	Tumor necrosis factor (ligand) superfamily, member 11
G10	Mm.28835	NM_033622	Tnfsf13b	Tumor necrosis factor (ligand) superfamily, member 13b
G11	Mm.282184	NM_009505	Vegfa	Vascular endothelial growth factor A
G12	Mm.190	NM_008510	Xcl1	Chemokine (C motif) ligand 1
H01	Mm.328431	NM_007393	Actb	Actin, beta
H02	Mm.163	NM_009735	B2m	Beta-2 microglobulin
H03	Mm.343110	NM_008084	Gapdh	Glyceraldehyde-3-phosphate dehydrogenase
H04	Mm.3317	NM_010368	Gusb	Glucuronidase, beta
H05	Mm.2180	NM_008302	Hsp90ab1	Heat shock protein 90 alpha (cytosolic), class B member 1
H06	N/A	SA_00106	MGDC	Mouse 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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