

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

Mouse T-Cell & B-Cell Activation

Cat. no. 330231 PAMM-053ZA

For pathway expression analysis

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



Sample & Assay Technologies

Description

The Mouse T-Cell & B-Cell Activation RT² Profiler PCR Array profiles the expression of 84 genes representing T Cell and B Cell Activation, a key part of adaptive immunity. This array includes genes involved B-cell activation as well as genes involved in B-cell proliferation and differentiation. Genes involved in the activation of T-cells and their proliferation and differentiation are also represented along with genes regulating Th1 and Th2 development and T-cell polarization. Genes involved in the activation of macrophages, neutrophils, and natural killer cells are also included. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to T Cell and B Cell Activation 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	Ada	Apc	Bad	Bcl2	Blm	Casp3	Cblb	Ccnd3	Cd1d1	Cd2	Cd28	Cd38
B	Cd3d	Cd3e	Cd3g	Cd4	Cd40	Cd40lg	Cd47	Cd48	Cd74	Cd79a	Cd81	Cd8a
C	Cd8b1	Cdkn1a	Cr2	Csf1	Csf2	Ctla4	Cxcl12	Cxcr4	Cxcr5	Dpp4	Egr1	Flt3
D	Foxp3	H60a	Hsp90aa1	Icam1	Icosl	Ifng	Il10	Il11	Il12b	Il15	Il18	Il1b
E	Il27	Il2ra	Il4	Il6	Il7	Irf4	Lag3	Lck	Map3k7	Ms4a1	Nck1	Nos2
F	Nr3c1	Pdcd1lg2	Pik3r1	Prkcd	Prkcg	Ptprc	Rag1	Ralb	Ripk2	Socs1	Spp1	Tgfb1
G	Thy1	Tlr1	Tlr4	Tlr6	Tnfrsf13b	Tnfrsf13c	Tnfrsf13b	Tnfrsf14	Traf6	Trp53	Vav1	Was
H	Actb	B2m	Gapdh	Gusb	Hsp90ab1	MGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Mm.388	NM_007398	Ada	Adenosine deaminase
A02	Mm.384171	NM_007462	Apc	Adenomatosis polyposis coli
A03	Mm.4387	NM_007522	Bad	BCL2-associated agonist of cell death
A04	Mm.257460	NM_009741	Bcl2	B-cell leukemia/lymphoma 2
A05	Mm.12932	NM_007550	Blm	Bloom syndrome, RecQ helicase-like
A06	Mm.34405	NM_009810	Casp3	Caspase 3
A07	Mm.328206	NM_001033238	Cblb	Casitas B-lineage lymphoma b
A08	Mm.246520	NM_007632	Ccnd3	Cyclin D3
A09	Mm.1894	NM_007639	Cd1d1	CD1d1 antigen
A10	Mm.22842	NM_013486	Cd2	CD2 antigen
A11	Mm.255003	NM_007642	Cd28	CD28 antigen
A12	Mm.249873	NM_007646	Cd38	CD38 antigen
B01	Mm.4527	NM_013487	Cd3d	CD3 antigen, delta polypeptide
B02	Mm.210361	NM_007648	Cd3e	CD3 antigen, epsilon polypeptide
B03	Mm.335106	NM_009850	Cd3g	CD3 antigen, gamma polypeptide
B04	Mm.2209	NM_013488	Cd4	CD4 antigen
B05	Mm.271833	NM_011611	Cd40	CD40 antigen
B06	Mm.4861	NM_011616	Cd40lg	CD40 ligand
B07	Mm.31752	NM_010581	Cd47	CD47 antigen (Rh-related antigen, integrin-associated signal transducer)
B08	Mm.1738	NM_007649	Cd48	CD48 antigen
B09	Mm.439737	NM_010545	Cd74	CD74 antigen (invariant polypeptide of major histocompatibility complex, class II antigen-associated)
B10	Mm.1355	NM_007655	Cd79a	CD79A antigen (immunoglobulin-associated alpha)
B11	Mm.806	NM_133655	Cd81	CD81 antigen
B12	Mm.1858	NM_001081110	Cd8a	CD8 antigen, alpha chain
C01	Mm.333148	NM_009858	Cd8b1	CD8 antigen, beta chain 1
C02	Mm.195663	NM_007669	Cdkn1a	Cyclin-dependent kinase inhibitor 1A (P21)
C03	Mm.235387	NM_007758	Cr2	Complement receptor 2
C04	Mm.795	NM_007778	Csf1	Colony stimulating factor 1 (macrophage)
C05	Mm.4922	NM_009969	Csf2	Colony stimulating factor 2 (granulocyte-macrophage)
C06	Mm.390	NM_009843	Ctla4	Cytotoxic T-lymphocyte-associated protein 4
C07	Mm.303231	NM_021704	Cxcl12	Chemokine (C-X-C motif) ligand 12
C08	Mm.1401	NM_009911	Cxcr4	Chemokine (C-X-C motif) receptor 4
C09	Mm.6246	NM_007551	Cxcr5	Chemokine (C-X-C motif) receptor 5
C10	Mm.1151	NM_010074	Dpp4	Dipeptidylpeptidase 4
C11	Mm.181959	NM_007913	Egr1	Early growth response 1
C12	Mm.194	NM_010229	Flt3	FMS-like tyrosine kinase 3
D01	Mm.182291	NM_054039	Foxp3	Forkhead box P3
D02	Mm.387042	NM_010400	H60a	Histocompatibility 60a
D03	Mm.1843	NM_010480	Hsp90aa1	Heat shock protein 90, alpha (cytosolic), class A member 1
D04	Mm.435508	NM_010493	Icam1	Intercellular adhesion molecule 1
D05	Mm.17819	NM_015790	Icosl	Icos ligand
D06	Mm.240327	NM_008337	Ifng	Interferon gamma
D07	Mm.874	NM_010548	Il10	Interleukin 10
D08	Mm.35814	NM_008350	Il11	Interleukin 11

Position	UniGene	GenBank	Symbol	Description
D09	Mm.239707	NM_008352	Il12b	Interleukin 12B
D10	Mm.4392	NM_008357	Il15	Interleukin 15
D11	Mm.1410	NM_008360	Il18	Interleukin 18
D12	Mm.222830	NM_008361	Il1b	Interleukin 1 beta
E01	Mm.222632	NM_145636	Il27	Interleukin 27
E02	Mm.915	NM_008367	Il2ra	Interleukin 2 receptor, alpha chain
E03	Mm.276360	NM_021283	Il4	Interleukin 4
E04	Mm.1019	NM_031168	Il6	Interleukin 6
E05	Mm.3825	NM_008371	Il7	Interleukin 7
E06	Mm.4677	NM_013674	Ir4	Interferon regulatory factor 4
E07	Mm.4528	NM_008479	Lag3	Lymphocyte-activation gene 3
E08	Mm.293753	NM_010693	Lck	Lymphocyte protein tyrosine kinase
E09	Mm.258589	NM_172688	Map3k7	Mitogen-activated protein kinase kinase kinase 7
E10	Mm.4046	NM_007641	Ms4a1	Membrane-spanning 4-domains, subfamily A, member 1
E11	Mm.181485	NM_010878	Nck1	Non-catalytic region of tyrosine kinase adaptor protein 1
E12	Mm.2893	NM_010927	Nos2	Nitric oxide synthase 2, inducible
F01	Mm.129481	NM_008173	Nr3c1	Nuclear receptor subfamily 3, group C, member 1
F02	Mm.116737	NM_021396	Pdcd1lg2	Programmed cell death 1 ligand 2
F03	Mm.259333	NM_001024955	Pik3r1	Phosphatidylinositol 3-kinase, regulatory subunit, polypeptide 1 (p85 alpha)
F04	Mm.2314	NM_011103	Prkcd	Protein kinase C, delta
F05	Mm.329993	NM_008859	Prkcc	Protein kinase C, theta
F06	Mm.391573	NM_011210	Plprc	Protein tyrosine phosphatase, receptor type, C
F07	Mm.828	NM_009019	Rag1	Recombination activating gene 1
F08	Mm.1741	NM_009046	Relb	Avian reticuloendotheliosis viral (v-rel) oncogene related B
F09	Mm.112765	NM_138952	Ripk2	Receptor (TNFRSF)-interacting serine-threonine kinase 2
F10	Mm.130	NM_009896	Socs1	Suppressor of cytokine signaling 1
F11	Mm.288474	NM_009263	Spp1	Secreted phosphoprotein 1
F12	Mm.248380	NM_011577	Tgfb1	Transforming growth factor, beta 1
G01	Mm.3951	NM_009382	Thy1	Thymus cell antigen 1, theta
G02	Mm.273024	NM_030682	Tlr1	Toll-like receptor 1
G03	Mm.38049	NM_021297	Tlr4	Toll-like receptor 4
G04	Mm.42146	NM_011604	Tlr6	Toll-like receptor 6
G05	Mm.265915	NM_021349	Tnfrsf13b	Tumor necrosis factor receptor superfamily, member 13b
G06	Mm.240047	NM_028075	Tnfrsf13c	Tumor necrosis factor receptor superfamily, member 13c
G07	Mm.28835	NM_033622	Tnfrsf13b	Tumor necrosis factor (ligand) superfamily, member 13b
G08	Mm.483369	NM_019418	Tnfrsf14	Tumor necrosis factor (ligand) superfamily, member 14
G09	Mm.292729	NM_009424	Traf6	Tnf receptor-associated factor 6
G10	Mm.222	NM_011640	Trp53	Transformation related protein 53
G11	Mm.248172	NM_011691	Vav1	Vav 1 oncogene
G12	Mm.4735	NM_009515	Was	Wiskott-Aldrich syndrome homolog (human)
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 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
RT ² 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
RT ² 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.

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