

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

Mouse Tumor Metastasis

Cat. no. 330231 PAMM-028ZA

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 Tumor Metastasis RT² Profiler PCR Array is designed to represent 84 genes known to be involved in metastasis. Genes selected for this array encode several classes of protein factors including cell adhesion, ECM components, cell cycle, cell growth and proliferation, apoptosis, transcription factors and regulators and other genes related to tumor metastasis. This array can help you investigate the molecular mechanism of metastasis or understand how a particular tumor metastasized. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to metastasis.

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	Apc	Brms1	Ccl7	Cd44	Cd82	Cdh1	Cdh11	Cdh6	Cdh8	Cdkn2a	Chd4	Col4a2
B	Csf1	Ctbp1	Ctnna1	Ctsk	Ctsl	Cxcl12	Cxcr2	Cxcr4	Denr	Elane	Ephb2	Etv4
C	Ewsr1	Fat1	Fgfr4	Flt4	Fn1	Fxyd5	Gpnmb	Hgf	Hpse	Hras1	Htatip2	Igf1
D	Il18	Il1b	Itga7	Itgb3	Kiss1	Kiss1r	Kras	Lpar6	Mcam	Mdm2	Met	Mmp10
E	Mmp11	Mmp13	Mmp2	Mmp3	Mmp7	Mmp9	Mta1	Mts1	Myc	Mycl1	Nf2	Nme1
F	Nme2	Nme4	Nr4a3	Plaur	Pnn	Plen	Rb1	Rorb	Rpsa	Set	Smad2	Smad4
G	Src	Sstr2	Sykb	Tcf20	Tgfb1	Timp2	Timp3	Timp4	Tnfrsf10	Trp53	Tshr	Vegfa
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.384171	NM_007462	Apc	Adenomatosis polyposis coli
A02	Mm.29628	NM_134155	Brms1	Breast cancer metastasis-suppressor 1
A03	Mm.341574	NM_013654	Ccl7	Chemokine (C-C motif) ligand 7
A04	Mm.423621	NM_009851	Cd44	CD44 antigen
A05	Mm.4261	NM_007656	Cd82	CD82 antigen
A06	Mm.35605	NM_009864	Cdh1	Cadherin 1
A07	Mm.1571	NM_009866	Cdh11	Cadherin 11
A08	Mm.57048	NM_007666	Cdh6	Cadherin 6
A09	Mm.441131	NM_007667	Cdh8	Cadherin 8
A10	Mm.4733	NM_009877	Cdkn2a	Cyclin-dependent kinase inhibitor 2A
A11	Mm.333388	NM_145979	Chd4	Chromodomain helicase DNA binding protein 4
A12	Mm.181021	NM_009932	Col4a2	Collagen, type IV, alpha 2
B01	Mm.795	NM_007778	Csf1	Colony stimulating factor 1 (macrophage)
B02	Mm.7286	NM_013502	Ctbp1	C-terminal binding protein 1
B03	Mm.18962	NM_009818	Ctnna1	Catenin (cadherin associated protein), alpha 1
B04	Mm.272085	NM_007802	Ctsk	Cathepsin K
B05	Mm.930	NM_009984	Ctsl	Cathepsin L
B06	Mm.303231	NM_021704	Cxcl12	Chemokine (C-X-C motif) ligand 12
B07	Mm.234466	NM_009909	Cxcr2	Chemokine (C-X-C motif) receptor 2
B08	Mm.1401	NM_009911	Cxcr4	Chemokine (C-X-C motif) receptor 4
B09	Mm.28549	NM_026603	Denr	Density-regulated protein
B10	Mm.262194	NM_015779	Elane	Elastase, neutrophil expressed
B11	Mm.250981	NM_010142	Ephb2	Eph receptor B2
B12	Mm.5025	NM_008815	Etv4	Ets variant gene 4 (E1A enhancer binding protein, E1AF)
C01	Mm.142822	NM_007968	Ewsr1	Ewing sarcoma breakpoint region 1
C02	Mm.27365	NM_001081286	Fat1	FAT tumor suppressor homolog 1 (Drosophila)
C03	Mm.276715	NM_008011	Fgfr4	Fibroblast growth factor receptor 4
C04	Mm.3291	NM_008029	Flt4	FMS-like tyrosine kinase 4
C05	Mm.193099	NM_010233	Fn1	Fibronectin 1
C06	Mm.1870	NM_008761	Fxyd5	FXD domain-containing ion transport regulator 5
C07	Mm.302602	NM_053110	Gpnmb	Glycoprotein (transmembrane) nmb
C08	Mm.267078	NM_010427	Hgf	Hepatocyte growth factor
C09	Mm.265786	NM_152803	Hpse	Heparanase
C10	Mm.334313	NM_008284	Hras1	Harvey rat sarcoma virus oncogene 1
C11	Mm.20801	NM_016865	Htatip2	HIV-1 tat interactive protein 2, homolog (human)
C12	Mm.268521	NM_010512	Igf1	Insulin-like growth factor 1
D01	Mm.1410	NM_008360	Il18	Interleukin 18
D02	Mm.222830	NM_008361	Il1b	Interleukin 1 beta
D03	Mm.179747	NM_008398	Itga7	Integrin alpha 7
D04	Mm.87150	NM_016780	Itgb3	Integrin beta 3
D05	Mm.458301	NM_178260	Kiss1	KISS-1 metastasis-suppressor
D06	Mm.191035	NM_053244	Kiss1r	KISS1 receptor
D07	Mm.383182	NM_021284	Kras	V-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog
D08	Mm.390681	NM_175116	Lpar6	Lysophosphatidic acid receptor 6
D09	Mm.275003	NM_023061	Mcam	Melanoma cell adhesion molecule

Position	UniGene	GenBank	Symbol	Description
D10	Mm.22670	NM_010786	Mdm2	Transformed mouse 3T3 cell double minute 2
D11	Mm.86844	NM_008591	Met	Met proto-oncogene
D12	Mm.14126	NM_019471	Mmp10	Matrix metalloproteinase 10
E01	Mm.4561	NM_008606	Mmp11	Matrix metalloproteinase 11
E02	Mm.5022	NM_008607	Mmp13	Matrix metalloproteinase 13
E03	Mm.29564	NM_008610	Mmp2	Matrix metalloproteinase 2
E04	Mm.4993	NM_010809	Mmp3	Matrix metalloproteinase 3
E05	Mm.4825	NM_010810	Mmp7	Matrix metalloproteinase 7
E06	Mm.4406	NM_013599	Mmp9	Matrix metalloproteinase 9
E07	Mm.212577	NM_054081	Mta1	Metastasis associated 1
E08	Mm.215481	NM_144800	Mtss1	Metastasis suppressor 1
E09	Mm.2444	NM_010849	Myc	Myelocytomatosis oncogene
E10	Mm.1055	NM_008506	Mycl1	V-myc myelocytomatosis viral oncogene homolog 1, lung carcinoma derived (avian)
E11	Mm.297109	NM_010898	Nf2	Neurofibromatosis 2
E12	Mm.439702	NM_008704	Nme1	Non-metastatic cells 1, protein (NM23A) expressed in
F01	Mm.1260	NM_008705	Nme2	Non-metastatic cells 2, protein (NM23B) expressed in
F02	Mm.41787	NM_019731	Nme4	Non-metastatic cells 4, protein expressed in
F03	Mm.247261	NM_015743	Nr4a3	Nuclear receptor subfamily 4, group A, member 3
F04	Mm.1359	NM_011113	Plaur	Plasminogen activator, urokinase receptor
F05	Mm.22347	NM_008891	Pnn	Pinin
F06	Mm.245395	NM_008960	Pten	Phosphatase and tensin homolog
F07	Mm.273862	NM_009029	Rb1	Retinoblastoma 1
F08	Mm.485649	NM_146095	Rorb	RAR-related orphan receptor beta
F09	Mm.311972	NM_011029	Rpsa	Ribosomal protein SA
F10	Mm.335942	NM_023871	Set	SET nuclear oncogene
F11	Mm.391091	NM_010754	Smad2	MAD homolog 2 (Drosophila)
F12	Mm.100399	NM_008540	Smad4	MAD homolog 4 (Drosophila)
G01	Mm.22845	NM_009271	Src	Rous sarcoma oncogene
G02	Mm.454968	NM_009217	Sstr2	Somatostatin receptor 2
G03	Mm.375031	NM_011518	Sykb	Spleen tyrosine kinase
G04	Mm.252156	NM_013836	Tcf20	Transcription factor 20
G05	Mm.248380	NM_011577	Tgfb1	Transforming growth factor, beta 1
G06	Mm.206505	NM_011594	Timp2	Tissue inhibitor of metalloproteinase 2
G07	Mm.4871	NM_011595	Timp3	Tissue inhibitor of metalloproteinase 3
G08	Mm.255607	NM_080639	Timp4	Tissue inhibitor of metalloproteinase 4
G09	Mm.1062	NM_009425	Tnfsf10	Tumor necrosis factor (ligand) superfamily, member 10
G10	Mm.222	NM_011640	Trp53	Transformation related protein 53
G11	Mm.173847	NM_011648	Tshr	Thyroid stimulating hormone receptor
G12	Mm.282184	NM_009505	Vegfa	Vascular endothelial growth factor A
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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