RT² Profiler PCR Array (Rotor-Gene® Format)

Mouse TGFb / BMP Signaling Pathway

Cat. no. 330231 PAMM-035ZR

For pathway expression analysis

Format	For use with the following real-time cyclers
RT² Profiler PCR Array, Format R	Rotor-Gene Q, other Rotor-Gene cyclers

Description

The Mouse TGFß / BMP Signaling Pathway RT² Profiler PCR Array profiles the expression of 84 genes related to TGFß / BMP-mediated signal transduction. The array includes members of the TGFß superfamily of cytokines and their receptors. SMAD and SMAD target genes are included. Related genes including adhesion and extracellular molecules and transcription factors are included. Some of the genes involved in downstream cellular and developmental processes are also represented. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to TGFß / BMP-mediated signal transduction 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.

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.689	NM_007394	Acvr1	Activin A receptor, type 1
A02	Mm.314338	NM_007396	Acvr2a	Activin receptor IIA
A03	Mm.279542	NM_009612	Acvrl1	Activin A receptor, type II-like 1
A04	Mm.376094	NM_007445	Amh	Anti-Mullerian hormone
A05	Mm.60331	NM_144547	Amhr2	Anti-Mullerian hormone type 2 receptor
A06	Mm.641	NM_009716	Atf4	Activating transcription factor 4
A07	Mm.284863	NM_026505	Bambi	BMP and activin membrane-bound inhibitor, homolog (Xenopus laevis)
A08	Mm.425160	NM_001032298	Bglap2	Bone gamma-carboxyglutamate protein 2
A09	Mm.27757	NM_009755	Bmp1	Bone morphogenetic protein 1
A10	Mm.103205	NM_007553	Bmp2	Bone morphogenetic protein 2
A11	Mm.209571	NM_173404	Bmp3	Bone morphogenetic protein 3
A12	Mm.6813	NM_007554	Bmp4	Bone morphogenetic protein 4
B01	Mm.428950	NM_007555	Bmp5	Bone morphogenetic protein 5
B02	Mm.385759	NM_007556	Bmp6	Bone morphogenetic protein 6
B03	Mm.595	NM_007557	Bmp7	Bone morphogenetic protein 7
B04	Mm.335020	NM_028472	Bmper	BMP-binding endothelial regulator
B05	Mm.237825	NM_009758	Bmpr1a	Bone morphogenetic protein receptor, type 1A
B06	Mm.39089	NM_007560	Bmpr1b	Bone morphogenetic protein receptor, type 1B
B07	Mm.7106	NM_007561	Bmpr2	Bone morphogenic protein receptor, type II (serine/threonine kinase)
B08	Mm.195663	NM_007669	Cdkn1a	Cyclin-dependent kinase inhibitor 1A (P21)
B09	Mm.2958	NM_009875	Cdkn1b	Cyclin-dependent kinase inhibitor 1B
B10	Mm.423094	NM_007670	Cdkn2b	Cyclin-dependent kinase inhibitor 2B (p15, inhibits CDK4)
B11	Mm.20457	NM_009893	Chrd	Chordin
B12	Mm.277735	NM_007742	Col1a1	Collagen, type I, alpha 1
C01	Mm.277792	NM_007743	Col1a2	Collagen, type I, alpha 2
C02	Mm.56769	NM_007833	Dcn	Decorin
C03	Mm.3896	NM_010054	Dlx2	Distal-less homeobox 2
C04	Mm.182785	NM_010128	Emp1	Epithelial membrane protein 1
C05	Mm.225297	NM_007932	Eng	Endoglin
C06	Mm.246513	NM_010234	Fos	FBJ osteosarcoma oncogene
C07	Mm.4913	NM_008046	Fst	Follistatin
C08	Mm.1360	NM_008655	Gadd45b	Growth arrest and DNA-damage-inducible 45 beta
C09	Mm.258280	NM_008107	Gdf1	Growth differentiation factor 1
C10	Mm.422844	NM_019506	Gdf2	Growth differentiation factor 2
C11	Mm.299742	NM_008108	Gdf3	Growth differentiation factor 3
C12	Mm.4744	NM_008109	Gdf5	Growth differentiation factor 5
D01	Mm.302555	NM_013526	Gdf6	Growth differentiation factor 6
D02	Mm.271308	NM_013527	Gdf7	Growth differentiation factor 7
D03	Mm.129	NM_010351	Gsc	Goosecoid homeobox
D04	Mm.29151	NM_022331	Herpud1	Homocysteine-inducible, endoplasmic reticulum stress-inducible, ubiquitin-like domain member 1
D05	Mm.444	NM_010495	Id1	Inhibitor of DNA binding 1
D06	Mm.34871	NM_010496	Id2	Inhibitor of DNA binding 2
D07	Mm.168	NM_013562	Ifrd1	Interferon-related developmental regulator 1
D08	Mm.268521	NM_010512	Igf1	Insulin-like growth factor 1
D09	Mm.29254	NM_008343	Igfbp3	Insulin-like growth factor binding protein 3
D10	Mm.1019	NM_031168	Il6	Interleukin 6
D11	Mm.1100	NM_010564	Inha	Inhibin alpha
D12	Mm.8042	NM_008380	Inhba	Inhibin beta-A
E01	Mm.275071	NM_010591	Jun	Jun oncogene
E02	Mm.1167	NM_008416	Junb	Jun-B oncogene
E03	Mm.378911	NM_010094	Lefty1	Left right determination factor 1
E04	Mm.269747	NM_019919	Ltbp1	Latent transforming growth factor beta binding protein 1
E05	Mm.3900	NM_013589	Ltbp2	Latent transforming growth factor beta binding protein 2
E06	Mm.272251	NM_175641	Ltbp4	Latent transforming growth factor beta binding protein 4
E07	Mm.56965	NM_007963	Mecom	MDS1 and EVI1 complex locus
E08	Mm.2444	NM_010849	Myc	Myelocytomatosis oncogene

Position	UniGene	GenBank	Symbol	Description
E09	Mm.57195	NM_013611	Nodal	Nodal
E10	Mm.135266	NM_008711	Nog	Noggin
E11	Mm.144089	NM_011057	Pdgfb	Platelet derived growth factor, B polypeptide
E12	Mm.4183	NM_008873	Plau	Plasminogen activator, urokinase
F01	Mm.4081	NM_009821	Runx1	Runt related transcription factor 1
F02	Mm.250422	NM_008871	Serpine1	Serine (or cysteine) peptidase inhibitor, clade E, member 1
F03	Mm.223717	NM_008539	Smad1	MAD homolog 1 (Drosophila)
F04	Mm.391091	NM_010754	Smad2	MAD homolog 2 (Drosophila)
F05	Mm.7320	NM_016769	Smad3	MAD homolog 3 (Drosophila)
F06	Mm.100399	NM_008540	Smad4	MAD homolog 4 (Drosophila)
F07	Mm.272920	NM_008541	Smad5	MAD homolog 5 (Drosophila)
F08	Mm.34407	NM_001042660	Smad7	MAD homolog 7 (Drosophila)
F09	Mm.27735	NM_029438	Smurf1	SMAD specific E3 ubiquitin protein ligase 1
F10	Mm.240627	NM_009238	Sox4	SRY-box containing gene 4
F11	Mm.277406	NM_009283	Stat1	Signal transducer and activator of transcription 1
F12	Mm.5090	NM_011562	Tdgf1	Teratocarcinoma-derived growth factor 1
G01	Mm.248380	NM_011577	Tgfb1	Transforming growth factor, beta 1
G02	Mm.3248	NM_009365	Tgfb1i1	Transforming growth factor beta 1 induced transcript 1
G03	Mm.18213	NM_009367	Tgfb2	Transforming growth factor, beta 2
G04	Mm.3992	NM_009368	Tgfb3	Transforming growth factor, beta 3
G05	Mm.14455	NM_009369	Tgfbi	Transforming growth factor, beta induced
G06	Mm.197552	NM_009370	Tgfbr1	Transforming growth factor, beta receptor I
G07	Mm.172346	NM_009371	Tgfbr2	Transforming growth factor, beta receptor II
G08	Mm.200775	NM_011578	Tgfbr3	Transforming growth factor, beta receptor III
G09	Mm.246069	NM_001013025	Tgfbrap1	Transforming growth factor, beta receptor associated protein 1
G10	Mm.4159	NM_011580	Thbs1	Thrombospondin 1
G11	Mm.1062	NM_009425	Tnfsf10	Tumor necrosis factor (ligand) superfamily, member 10
G12	Mm.153272	NM_009366	Tsc22d1	TSC22 domain family, member 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.
RT² First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT² 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.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor.

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