RT² Profiler PCR Array (Rotor-Gene® Format)

Mouse Pre-Eclampsia

Cat. no. 330231 PAMM-163ZR

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 Pre-Eclampsia RT² Profiler PCR Array profiles the expression of 84 key genes involved in dysregulation of placental development. Pre-eclampsia, a life-threatening disease, presents with high blood pressure during pregnancy, and delivery of the placenta provides the only cure. This disease is considered early-onset if the pregnancy is less than 32 weeks, and is otherwise called late-onset. The causes of pre-eclampsia are not entirely understood. Many patients show poor placental implantation, suggesting that pre-eclampsia begins very early in pregnancy, even though the symptoms only arise later. A potential molecular mechanism involves defective vascular remodeling by trophoblasts early in placental development. As the disease progresses, the placenta may become hypoxic, causing inflammation and oxidative stress. These processes result in the infiltration of immune cells such as T helper 1 (Th1) cells, neutrophils, and natural killer cells. A similar process results in intrauterine growth retardation, or insufficient fetal growth. Active areas of pre-eclampsia research include the effort to identify women with a high risk of pre-eclampsia during their pregnancy. In addition, research determining the key genes involved in pre-eclampsia may lead to novel therapeutic targets to inhibit or reverse the condition. Using real-time PCR, research studies can easily and reliably analyze the expression of a focused panel of genes involved in pre-eclampsia 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.196634	NM_008576	Abcc1	ATP-binding cassette, sub-family C (CFTR/MRP), member 1
A02	Mm.333096	NM_011920	Abcg2	ATP-binding cassette, sub-family G (WHITE), member 2
A03	Mm.1408	NM_009627	Adm	Adrenomedullin
A04	Mm.35062	NM_177322	Agtr1a	Angiotensin II receptor, type 1a
A05	Mm.439874	NM_007426	Angpt2	Angiopoietin 2
A06	Mm.29262	NM_013912	Apln	Apelin
A07	Mm.4550	NM_009721	Atp1b1	ATPase, Na+/K+ transporting, beta 1 polypeptide
A08	Mm.227583	NM_009722	Atp2a2	ATPase, Ca++ transporting, cardiac muscle, slow twitch 2
A09	Mm.347398	NM_009744	Bcl6	B-cell leukemia/lymphoma 6
A10	Mm.2436	NM_011498	Bhlhe40	Basic helix-loop-helix family, member e40
A11	Mm.19131	NM_009778	C3	Complement component 3
A12	Mm.28278	NM_007616	Cav1	Caveolin 1, caveolae protein
B01	Mm.867	NM_011331	Ccl12	Chemokine (C-C motif) ligand 12
B02	Mm.4861	NM_011616	Cd40lg	CD40 ligand
B03	Mm.334841	NM_019707	Cdh13	Cadherin 13
B04	Mm.4407	NM_013459	Cfd	Complement factor D (adipsin)
B05	Mm.200608	NM_013492	Clu	Clusterin
B06	Mm.297859	NM_181277	Col14a1	Collagen, type XIV, alpha 1
B07	Mm.13787	NM_007752	Cp	Ceruloplasmin
B08	Mm.290689	NM_205769	Crh	Corticotropin releasing hormone
B09	Mm.316614	NM_198408	Crhbp	Corticotropin releasing hormone binding protein
B10	Mm.877	NM_021274	Cxcl10	Chemokine (C-X-C motif) ligand 10
B11	Mm.766	NM_008599	Cxcl9	Chemokine (C-X-C motif) ligand 9
B12	Mm.1401	NM_009911	Cxcr4	Chemokine (C-X-C motif) receptor 4
C01	Mm.42230	NM_007811	Cyp26a1	Cytochrome P450, family 26, subfamily a, polypeptide 1
C02	Mm.56769	NM_007833	Dcn	Decorin
C03	Mm.239041	NM_013642	Dusp1	Dual specificity phosphatase 1
C04	Mm.14543	NM_010104	Edn1	Endothelin 1
C05	Mm.225297	NM_007932	Eng	Endoglin
C06	Mm.12900	NM_007976	F5	Coagulation factor V
C07	Mm.582	NM_024406	Fabp4	Fatty acid binding protein 4, adipocyte
C08	Mm.389712	NM_010228	Flt1	FMS-like tyrosine kinase 1
C09	Mm.3291	NM_008029	Flt4	FMS-like tyrosine kinase 4
C10	Mm.251710	NM_031380	Fstl3	Follistatin-like 3
C11	Mm.14437	NM_013819	H2-M3	Histocompatibility 2, M region locus 3
C12	Mm.289681	NM_010415	Hbegf	Heparin-binding EGF-like growth factor
D01	Mm.267078	NM_010427	Hgf	Hepatocyte growth factor
D02	Mm.3879	NM_010431	Hif1a	Hypoxia inducible factor 1, alpha subunit
D03	Mm.26730	NM_017370	Hp	Haptoglobin
D04	Mm.188939	NM_010475	Hsd17b1	Hydroxysteroid (17-beta) dehydrogenase 1
D05	Mm.1843	NM_010480	Hsp90aa1	Heat shock protein 90, alpha (cytosolic), class A member 1
D06	Mm.4831	NM_013561	Htr3a	5-hydroxytryptamine (serotonin) receptor 3A
D07	Mm.30156	NM_019564	Htra1	HtrA serine peptidase 1
D08	Mm.240327	NM_008337	Ifng	Interferon gamma
D09	Mm.268521	NM_010512	Igf1	Insulin-like growth factor 1
D10	Mm.29254	NM_008343	Igfbp3	Insulin-like growth factor binding protein 3
D11	Mm.874	NM_010548	Il10	Interleukin 10
D12	Mm.35814	NM_008350	Il11	Interleukin 11
E01	Mm.4392	NM_008357	Il15	Interleukin 15
E02	Mm.1410	NM_008360	Il18	Interleukin 18
E03	Mm.15534	NM_010554	Il1a	Interleukin 1 alpha
E04	Mm.14190	NM_008366	Il2	Interleukin 2
E05	Mm.1019	NM_031168	Il6	Interleukin 6
E06	Mm.1100	NM_010564	Inha	Inhibin alpha
E07	Mm.8042	NM_008380	Inhba	Inhibin beta-A
E08	Mm.87150	NM_016780	Itgb3	Integrin beta 3
E09	Mm.247073	NM_021099	Kit	Kit oncogene

Position	UniGene	GenBank	Symbol	Description
E10	Mm.439699	NM_008471	Krt19	Keratin 19
E11	Mm.277072	NM_008493	Lep	Leptin
E12	Mm.1514	NM_008509	Lpl	Lipoprotein lipase
F01	Mm.425994	NM_008552	Mas1	MAS1 oncogene
F02	Mm.2055	NM_008605	Mmp12	Matrix metallopeptidase 12
F03	Mm.4406	NM_013599	Mmp9	Matrix metallopeptidase 9
F04	Mm.4974	NM_010875	Ncam1	Neural cell adhesion molecule 1
F05	Mm.30837	NM_008681	Ndrg1	N-myc downstream regulated gene 1
F06	Mm.258415	NM_008713	Nos3	Nitric oxide synthase 3, endothelial cell
F07	Mm.130054	NM_008745	Ntrk2	Neurotrophic tyrosine kinase, receptor, type 2
F08	Mm.458621	NM_001085376	Pappa2	Pappalysin 2
F09	Mm.390122	NM_027924	Pdgfd	Platelet-derived growth factor, D polypeptide
F10	Mm.4809	NM_008827	Pgf	Placental growth factor
F11	Mm.12798	NM_008829	Pgr	Progesterone receptor
F12	Mm.293870	NM_027455	Qpct	Glutaminyl-peptide cyclotransferase (glutaminyl cyclase)
G01	Mm.482074	NM_009252	Serpina3n	Serine (or cysteine) peptidase inhibitor, clade A, member 3N
G02	Mm.276325	NM_011434	Sod1	Superoxide dismutase 1, soluble
G03	Mm.288474	NM_009263	Spp1	Secreted phosphoprotein 1
G04	Mm.277406	NM_009283	Stat1	Signal transducer and activator of transcription 1
G05	Mm.1440	NM_009311	Tac1	Tachykinin 1
G06	Mm.2374	NM_009312	Tac2	Tachykinin 2
G07	Mm.14313	NM_013690	Tek	Endothelial-specific receptor tyrosine kinase
G08	Mm.248380	NM_011577	Tgfb1	Transforming growth factor, beta 1
G09	Mm.1293	NM_013693	Tnf	Tumor necrosis factor
G10	Mm.248352	NM_021406	Trem1	Triggering receptor expressed on myeloid cells 1
G11	Mm.158700	NM_001081249	Vcan	Versican
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.
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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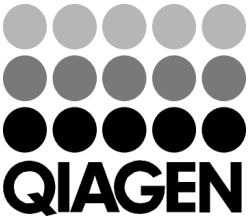

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