RT² Profiler PCR Array (Rotor-Gene® Format)

Mouse Oxidative Stress

Cat. no. 330231 PAMM-065ZR

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 Oxidative Stress RT² Profiler PCR Array profiles the expression of 84 genes related to oxidative stress. Peroxidases are represented on this array including glutathione peroxidases (GPx) and peroxiredoxins (TPx). Also included are the genes involved in reactive oxygen species (ROS) metabolism, such as oxidative stress responsive genes and genes involved in superoxide metabolism such as superoxide dismutases (SOD). Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to oxidative stress 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.16773	NM_009654	Alb	Albumin
A02	Mm.272078	NM_028717	Als2	Amyotrophic lateral sclerosis 2 (juvenile) homolog (human)
A03	Mm.26787	NM_009676	Aox1	Aldehyde oxidase 1
A04	Mm.384171	NM_007462	Apc	Adenomatosis polyposis coli
A05	Mm.305152	NM_009696	Apoe	Apolipoprotein E
A06	Mm.212462	NM_019864	Atr	Ataxia telangiectasia and rad3 related
A07	Mm.4215	NM_009804	Cat	Catalase
A08	Mm.284248	NM_013653	Ccl5	Chemokine (C-C motif) ligand 5
A09	Mm.434411	NM_016892	Ccs	Copper chaperone for superoxide dismutase
A10	Mm.236553	NM_007798	Ctsb	Cathepsin B
A11	Mm.271671	NM_007806	Cyba	Cytochrome b-245, alpha polypeptide
A12	Mm.34598	NM_030206	Cygb	Cytoglobin
B01	Mm.433257	NM_001039520	Dnm2	Dynamin 2
B02	Mm.108582	NM_001099297	Duox1	Dual oxidase 1
B03	Mm.438817	NM_153068	Ehd2	EH-domain containing 2
B04	Mm.1315	NM_007946	Epx	Eosinophil peroxidase
B05	Mm.36524	NM_007949	Ercc2	Excision repair cross-complementing rodent repair deficiency, complementation group 2
B06	Mm.318310	NM_001081221	Ercc6	Excision repair cross-complementing rodent repair deficiency, complementation group 6
B07	Mm.126106	NM_007985	Fancc	Fanconi anemia, complementation group C
B08	Mm.10929	NM_018881	Fmo2	Flavin containing monooxygenase 2
B09	Mm.1776	NM_010239	Fth1	Ferritin heavy chain 1
B10	Mm.485389	NM_010295	Gclc	Glutamate-cysteine ligase, catalytic subunit
B11	Mm.292676	NM_008129	Gclm	Glutamate-cysteine ligase, modifier subunit
B12	Mm.1090	NM_008160	Gpx1	Glutathione peroxidase 1
C01	Mm.441856	NM_030677	Gpx2	Glutathione peroxidase 2
C02	Mm.200916	NM_008161	Gpx3	Glutathione peroxidase 3
C03	Mm.359573	NM_008162	Gpx4	Glutathione peroxidase 4
C04	Mm.1332	NM_010343	Gpx5	Glutathione peroxidase 5
C05	Mm.46195	NM_145451	Gpx6	Glutathione peroxidase 6
C06	Mm.20164	NM_024198	Gpx7	Glutathione peroxidase 7
C07	Mm.283573	NM_010344	Gsr	Glutathione reductase
C08	Mm.252316	NM_008180	Gss	Glutathione synthetase
C09	Mm.267014	NM_029555	Gstk1	Glutathione S-transferase kappa 1
C10	Mm.299292	NM_013541	Gstp1	Glutathione S-transferase, pi 1
C11	Mm.276389	NM_010442	Hmox1	Heme oxygenase (decycling) 1
C12	Mm.6388	NM_010479	Hspa1a	Heat shock protein 1A
D01	Mm.9925	NM_010497	Idh1	Isocitrate dehydrogenase 1 (NADP+), soluble
D02	Mm.293023	NM_026298	Ift172	Intraflagellar transport 172 homolog (Chlamydomonas)
D03	Mm.131480	NM_001009940	Il19	Interleukin 19
D04	Mm.103585	NM_016971	Il22	Interleukin 22
D05	Mm.183137	NM_008473	Krt1	Keratin 1
D06	Mm.41236	NM_080420	Lpo	Lactoperoxidase
D07	Mm.404074	NM_013593	Mb	Myoglobin
D08	Mm.4668	NM_010824	Mpo	Myeloperoxidase
D09	Mm.425296	NM_010876	Ncf1	Neutrophil cytosolic factor 1
D10	Mm.270307	NM_010877	Ncf2	Neutrophil cytosolic factor 2
D11	Mm.41395	NM_022414	Ngb	Neuroglobin
D12	Mm.2893	NM_010927	Nos2	Nitric oxide synthase 2, inducible
E01	Mm.233865	NM_172203	Nox1	NADPH oxidase 1
E02	Mm.31748	NM_015760	Nox4	NADPH oxidase 4
E03	Mm.218774	NM_172204	Noxa1	NADPH oxidase activator 1
E04	Mm.390971	NM_027988	Noxo1	NADPH oxidase organizer 1
E05	Mm.252	NM_008706	Nqo1	NAD(P)H dehydrogenase, quinone 1
E06	Mm.277349	NM_020569	Park7	Parkinson disease (autosomal recessive, early onset) 7
E07	Mm.30929	NM_011034	Prdx1	Peroxiredoxin 1

Position	UniGene	GenBank	Symbol	Description
E08	Mm.347009	NM_011563	Prdx2	Peroxiredoxin 2
E09	Mm.29821	NM_007452	Prdx3	Peroxiredoxin 3
E10	Mm.247542	NM_016764	Prdx4	Peroxiredoxin 4
E11	Mm.279782	NM_012021	Prdx5	Peroxiredoxin 5
E12	Mm.186185	NM_007453	Prdx6	Peroxiredoxin 6
F01	Mm.648	NM_011170	Prnp	Prion protein
F02	Mm.8911	NM_011186	Psmb5	Proteasome (prosome, macropain) subunit, beta type 5
F03	Mm.275434	NM_008969	Ptgs1	Prostaglandin-endoperoxide synthase 1
F04	Mm.292547	NM_011198	Ptgs2	Prostaglandin-endoperoxide synthase 2
F05	Mm.4988	NM_009020	Rag2	Recombination activating gene 2
F06	Mm.18373	NM_058214	Recql4	RecQ protein-like 4
F07	Mm.267377	NM_009127	Scd1	Stearoyl-Coenzyme A desaturase 1
F08	Mm.314490	NM_173052	Serpinb1b	Serine (or cysteine) peptidase inhibitor, clade B, member 1b
F09	Mm.103568	NM_134086	Slc38a1	Solute carrier family 38, member 1
F10	Mm.276325	NM_011434	Sod1	Superoxide dismutase 1, soluble
F11	Mm.290876	NM_013671	Sod2	Superoxide dismutase 2, mitochondrial
F12	Mm.2407	NM_011435	Sod3	Superoxide dismutase 3, extracellular
G01	Mm.40828	NM_011018	Sqstm1	Sequestosome 1
G02	Mm.218639	NM_029688	Srxn1	Sulfiredoxin 1 homolog (S. cerevisiae)
G03	Mm.4991	NM_009417	Tpo	Thyroid peroxidase
G04	Mm.260618	NM_011660	Txn1	Thioredoxin 1
G05	Mm.410189	NM_023719	Txnip	Thioredoxin interacting protein
G06	Mm.210155	NM_015762	Txnrd1	Thioredoxin reductase 1
G07	Mm.390906	NM_013711	Txnrd2	Thioredoxin reductase 2
G08	Mm.229332	NM_153162	Txnrd3	Thioredoxin reductase 3
G09	Mm.171378	NM_011671	Ucp2	Uncoupling protein 2 (mitochondrial, proton carrier)
G10	Mm.6254	NM_009464	Ucp3	Uncoupling protein 3 (mitochondrial, proton carrier)
G11	Mm.268000	NM_011701	Vim	Vimentin
G12	Mm.247036	NM_011728	Xpa	Xeroderma pigmentosum, complementation group 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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