RT² Profiler PCR Array (Rotor-Gene® Format)

Mouse Autophagy

Cat. no. 330231 PAMM-084ZR

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 Autophagy RT² Profiler PCR Array profiles the expression of 84 key genes involved in autophagy, an intracellular catabolic process that destroys a cell's own damaged proteins and organelles via the lysosome. Autophagy has been shown to play roles in a wide variety of normal physiological processes including energy metabolism, organelle turnover, growth regulation, and aging. Impaired autophagy can lead to diseases such as cardiomyopathy and cancer. The array includes genes that encode components of the molecular machinery and key regulators modulating autophagy in response to both extracellular and intracellular signals. Using real-time PCR, you can easily and reliably analyze the expression of a focused panel of genes involved in autophagy 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.6645	NM_009652	Akt1	Thymoma viral proto-oncogene 1
A02	Mm.436667	NM_172669	Ambra1	Autophagy/beclin 1 regulator 1
A03	Mm.277585	NM_007471	App	Amyloid beta (A4) precursor protein
A04	Mm.235385	NM_025770	Atg10	Autophagy-related 10 (yeast)
A05	Mm.9852	NM_026217	Atg12	Autophagy-related 12 (yeast)
A06	Mm.272972	NM_029846	Atg16l1	Autophagy-related 16-like 1 (yeast)
A07	Mm.275744	NM_001111111	Atg16l2	Autophagy related 16 like 2 (S. cerevisiae)
A08	Mm.41775	NM_026402	Atg3	Autophagy-related 3 (yeast)
A09	Mm.102230	NM_174875	Atg4a	Autophagy-related 4A (yeast)
A10	Mm.29087	NM_174874	Atg4b	Autophagy-related 4B (yeast)
A11	Mm.241663	NM_175029	Atg4c	Autophagy-related 4C (yeast)
A12	Mm.440165	NM_153583	Atg4d	Autophagy-related 4D (yeast)
B01	Mm.22264	NM_053069	Atg5	Autophagy-related 5 (yeast)
B02	Mm.275332	NM_028835	Atg7	Autophagy-related 7 (yeast)
B03	Mm.479951	NM_001003917	Atg9a	Autophagy-related 9A (yeast)
B04	Mm.332252	NM_001002897	Atg9b	ATG9 autophagy related 9 homolog B (S. cerevisiae)
B05	Mm.4387	NM_007522	Bad	BCL2-associated agonist of cell death
B06	Mm.2443	NM_007523	Bak1	BCL2-antagonist/killer 1
B07	Mm.19904	NM_007527	Bax	Bcl2-associated X protein
B08	Mm.257460	NM_009741	Bcl2	B-cell leukemia/lymphoma 2
B09	Mm.238213	NM_009743	Bcl2l1	Bcl2-like 1
B10	Mm.178947	NM_019584	Becn1	Beclin 1, autophagy related
B11	Mm.235081	NM_007544	Bid	BH3 interacting domain death agonist
B12	Mm.378890	NM_009760	Bnip3	BCL2/adenovirus E1B interacting protein 3
C01	Mm.34405	NM_009810	Casp3	Caspase 3
C02	Mm.336851	NM_009812	Casp8	Caspase 8
C03	Mm.2958	NM_009875	Cdkn1b	Cyclin-dependent kinase inhibitor 1B
C04	Mm.4733	NM_009877	Cdkn2a	Cyclin-dependent kinase inhibitor 2A
C05	Mm.268930	NM_009907	Cln3	Ceroid lipofuscinosis, neuronal 3, juvenile (Batten, Spielmeyer-Vogt disease)
C06	Mm.236553	NM_007798	Ctsb	Cathepsin B
C07	Mm.231395	NM_009983	Ctsd	Cathepsin D
C08	Mm.3619	NM_021281	Ctss	Cathepsin S
C09	Mm.1401	NM_009911	Cxcr4	Chemokine (C-X-C motif) receptor 4
C10	Mm.24103	NM_029653	Dapk1	Death associated protein kinase 1
C11	Mm.35450	NM_027878	Dram1	DNA-damage regulated autophagy modulator 1
C12	Mm.290488	NM_026013	Dram2	VDNA-damage regulated autophagy modulator 2
D01	Mm.247167	NM_010121	Eif2ak3	Eukaryotic translation initiation factor 2 alpha kinase 3
D02	Mm.260256	NM_001005331	Eif4g1	Eukaryotic translation initiation factor 4, gamma 1
D03	Mm.9213	NM_007956	Esr1	Estrogen receptor 1 (alpha)
D04	Mm.5126	NM_010175	Fadd	Fas (TNFRSF6)-associated via death domain
D05	Mm.1626	NM_007987	Fas	Fas (TNF receptor superfamily member 6)
D06	Mm.4793	NM_008064	Gaa	Glucosidase, alpha, acid
D07	Mm.272460	NM_019749	Gabarap	Gamma-aminobutyric acid receptor associated protein
D08	Mm.14638	NM_020590	Gabarapl1	Gamma-aminobutyric acid (GABA) A receptor-associated protein-like 1
D09	Mm.371666	NM_026693	Gabarapl2	Gamma-aminobutyric acid (GABA) A receptor-associated protein-like 2
D10	Mm.202504	NM_008228	Hdac1	Histone deacetylase 1
D11	Mm.29854	NM_010413	Hdac6	Histone deacetylase 6
D12	Mm.7919	NM_008244	Hgs	HGF-regulated tyrosine kinase substrate
E01	Mm.1843	NM_010480	Hsp90aa1	Heat shock protein 90, alpha (cytosolic), class A member 1
E02	Mm.336743	NM_031165	Hspa8	Heat shock protein 8
E03	Mm.209071	NM_010414	Htt	Huntingtin
E04	Mm.240327	NM_008337	Ifng	Interferon gamma
E05	Mm.268521	NM_010512	Igf1	Insulin-like growth factor 1
E06	Mm.4946	NM_008387	Ins2	Insulin II
E07	Mm.29938	NM_008326	Irgm1	Immunity-related GTPase family M member 1
E08	Mm.16716	NM_010684	Lamp1	Lysosomal-associated membrane protein 1
E09	Mm.196239	NM_025735	Map1lc3a	Microtubule-associated protein 1 light chain 3 alpha

Position	UniGene	GenBank	Symbol	Description
E10	Mm.28357	NM_026160	Map1lc3b	Microtubule-associated protein 1 light chain 3 beta
E11	Mm.311337	NM_011951	Mapk14	Mitogen-activated protein kinase 14
E12	Mm.21495	NM_016700	Mapk8	Mitogen-activated protein kinase 8
F01	Mm.21158	NM_020009	Mtor	Mechanistic target of rapamycin (serine/threonine kinase)
F02	Mm.256765	NM_008689	Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1, p105
F03	Mm.3484	NM_008720	Npc1	Niemann Pick type C1
F04	Mm.194127	NM_181414	Pik3c3	Phosphoinositide-3-kinase, class 3
F05	Mm.101369	NM_020272	Pik3cg	Phosphoinositide-3-kinase, catalytic, gamma polypeptide
F06	Mm.274830	NM_001081309	Pik3r4	Phosphatidylinositol 3 kinase, regulatory subunit, polypeptide 4, p150
F07	Mm.207004	NM_001013367	Prkaa1	Protein kinase, AMP-activated, alpha 1 catalytic subunit
F08	Mm.245395	NM_008960	Pten	Phosphatase and tensin homolog
F09	Mm.220923	NM_009000	Rab24	RAB24, member RAS oncogene family
F10	Mm.273862	NM_009029	Rb1	Retinoblastoma 1
F11	Mm.274366	NM_026446	Rgs19	Regulator of G-protein signaling 19
F12	Mm.394280	NM_028259	Rps6kb1	Ribosomal protein S6 kinase, polypeptide 1
G01	Mm.17484	NM_009221	Snca	Synuclein, alpha
G02	Mm.40828	NM_011018	Sqstm1	Sequestosome 1
G03	Mm.248380	NM_011577	Tgfb1	Transforming growth factor, beta 1
G04	Mm.330731	NM_009373	Tgm2	Transglutaminase 2, C polypeptide
G05	Mm.41219	NM_175502	Tmem74	Transmembrane protein 74
G06	Mm.1293	NM_013693	Tnf	Tumor necrosis factor
G07	Mm.1062	NM_009425	Tnfsf10	Tumor necrosis factor (ligand) superfamily, member 10
G08	Mm.222	NM_011640	Trp53	Transformation related protein 53
G09	Mm.271898	NM_009469	Ulk1	Unc-51 like kinase 1 (C. elegans)
G10	Mm.162025	NM_013881	Ulk2	Unc-51 like kinase 2 (C. elegans)
G11	Mm.323072	NM_178635	Uvrag	UV radiation resistance associated gene
G12	Mm.35817	NM_145940	Wipi1	WD repeat domain, phosphoinositide interacting 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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