

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

Mouse Obesity

Cat. no. 330231 PAMM-017ZA

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 Obesity RT² Profiler PCR Array profiles the expression of 84 genes related to obesity. The control of a relative stable body weight depends on a complex interaction among the hormone axes in the peripheral nervous system and neurotransmitter signals in the central nervous system that play a crucial role in maintaining a balanced energy metabolism. This PCR Array includes obesity-related genes that are directly involved in the regulation of energy intake and expenditure. The genes encode for orexigenic peptides, hormones, and receptors; anorectic peptides, hormones, receptors; and central and peripheral signaling molecules involved in energy expenditure. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to Obesity with this array.

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	Adcyap1	Adcyap1r1	Adipoq	Adipor1	Adipor2	Adra2b	Adrb1	Agrp	Apoa4	Atrn	Bdnf	Brs3
B	C3	Calca	Calcr	Cartpt	Cck	Cckar	Clps	Cnr1	Cntrf	Cpd	Cpe	Crhr1
C	Drd1a	Drd2	Gal	Galr1	Gcg	Gcgr	Gh	Ghr	Ghrl	Ghsr	Glp1r	Grp
D	Grpr	Hcrf	Hcrtr1	Hrh1	Htr2c	Iapp	Il1a	Il1b	Il1r1	Il6	Il6ra	Ins1
E	Ins2	Insr	Lep	LepR	Mc3r	Mchr1	Nmb	Nmbr	Nmu	Nmur1	Npy	Npy1r
F	Nr3c1	Ntrk2	Nts	Ntsr1	Oprk1	Oprm1	Pomc	Ppara	Pparg	Ppargc1a	Prlhr	Ptprn1
G	Ppy	Ramp3	Sigmar1	Sort1	Sst	Sstr2	Thrb	Tnf	Trh	Ucn	Ucp1	Zfp91
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.3407	NM_009625	Adcyap1	Adenylate cyclase activating polypeptide 1
A02	Mm.44245	NM_007407	Adcyap1r1	Adenylate cyclase activating polypeptide 1 receptor 1
A03	Mm.3969	NM_009605	Adipoq	Adiponectin, C1Q and collagen domain containing
A04	Mm.259976	NM_028320	Adipor1	Adiponectin receptor 1
A05	Mm.291826	NM_197985	Adipor2	Adiponectin receptor 2
A06	Mm.347390	NM_009633	Adra2b	Adrenergic receptor, alpha 2b
A07	Mm.46797	NM_007419	Adrb1	Adrenergic receptor, beta 1
A08	Mm.441696	NM_007427	Agrp	Agouti related protein
A09	Mm.4533	NM_007468	Apoa4	Apolipoprotein A-IV
A10	Mm.119936	NM_009730	Atrn	Attractin
A11	Mm.1442	NM_007540	Bdnf	Brain derived neurotrophic factor
A12	Mm.10687	NM_009766	Brs3	Bombesin-like receptor 3
B01	Mm.19131	NM_009778	C3	Complement component 3
B02	Mm.4361	NM_007587	Calca	Calcitonin/calcitonin-related polypeptide, alpha
B03	Mm.4642	NM_007588	Calcr	Calcitonin receptor
B04	Mm.75498	NM_013732	Cartpt	CART prepropeptide
B05	Mm.2619	NM_031161	Cck	Cholecystokinin
B06	Mm.3521	NM_009827	Cckar	Cholecystokinin A receptor
B07	Mm.21160	NM_025469	Clps	Colipase, pancreatic
B08	Mm.7992	NM_007726	Cnr1	Cannabinoid receptor 1 (brain)
B09	Mm.425178	NM_016673	Cntrf	Ciliary neurotrophic factor receptor
B10	Mm.276736	NM_007754	Cpd	Carboxypeptidase D
B11	Mm.31395	NM_013494	Cpe	Carboxypeptidase E
B12	Mm.1892	NM_007762	Crhr1	Corticotropin releasing hormone receptor 1
C01	Mm.54161	NM_010076	Drd1a	Dopamine receptor D1A
C02	Mm.41970	NM_010077	Drd2	Dopamine receptor D2
C03	Mm.4655	NM_010253	Gal	Galanin
C04	Mm.6219	NM_008082	Galr1	Galanin receptor 1
C05	Mm.45494	NM_008100	Gcg	Glucagon
C06	Mm.22329	NM_008101	Gcgr	Glucagon receptor
C07	Mm.343934	NM_008117	Gh	Growth hormone
C08	Mm.3986	NM_010284	Ghr	Growth hormone receptor
C09	Mm.379095	NM_021488	Ghrl	Ghrelin
C10	Mm.194721	NM_177330	Ghsr	Growth hormone secretagogue receptor
C11	Mm.390969	NM_021332	Glp1r	Glucagon-like peptide 1 receptor
C12	Mm.20298	NM_175012	Grp	Gastrin releasing peptide
D01	Mm.4687	NM_008177	Grpr	Gastrin releasing peptide receptor
D02	Mm.10096	NM_010410	Hcrf	Hypocretin
D03	Mm.246595	NM_198959	Hcrtr1	Hypocretin (orexin) receptor 1
D04	Mm.333327	NM_008285	Hrh1	Histamine receptor H1
D05	Mm.439670	NM_008312	Htr2c	5-hydroxytryptamine (serotonin) receptor 2C
D06	Mm.415	NM_010491	Iapp	Islet amyloid polypeptide
D07	Mm.15534	NM_010554	Il1a	Interleukin 1 alpha
D08	Mm.222830	NM_008361	Il1b	Interleukin 1 beta
D09	Mm.896	NM_008362	Il1r1	Interleukin 1 receptor, type I

Position	UniGene	GenBank	Symbol	Description
D10	Mm.1019	NM_031168	Il6	Interleukin 6
D11	Mm.2856	NM_010559	Il6ra	Interleukin 6 receptor, alpha
D12	Mm.46269	NM_008386	Ins1	Insulin I
E01	Mm.4946	NM_008387	Ins2	Insulin II
E02	Mm.268003	NM_010568	Insr	Insulin receptor
E03	Mm.277072	NM_008493	Lep	Leptin
E04	Mm.259282	NM_010704	Lepr	Leptin receptor
E05	Mm.57183	NM_008561	Mc3r	Melanocortin 3 receptor
E06	Mm.323523	NM_145132	Mchr1	Melanin-concentrating hormone receptor 1
E07	Mm.22246	NM_026523	Nmb	Neuromedin B
E08	Mm.425622	NM_008703	Nmbr	Neuromedin B receptor
E09	Mm.154879	NM_019515	Nmu	Neuromedin U
E10	Mm.389159	NM_010341	Nmur1	Neuromedin U receptor 1
E11	Mm.154796	NM_023456	Npy	Neuropeptide Y
E12	Mm.5112	NM_010934	Npy1r	Neuropeptide Y receptor Y1
F01	Mm.129481	NM_008173	Nr3c1	Nuclear receptor subfamily 3, group C, member 1
F02	Mm.130054	NM_008745	Ntrk2	Neurotrophic tyrosine kinase, receptor, type 2
F03	Mm.64201	NM_024435	Nts	Neurotensin
F04	Mm.301712	NM_018766	Ntsr1	Neurotensin receptor 1
F05	Mm.7977	NM_011011	Oprk1	Opioid receptor, kappa 1
F06	Mm.457998	NM_001039652	Oprm1	Opioid receptor, mu 1
F07	Mm.277996	NM_008895	Pomc	Pro-opiomelanocortin-alpha
F08	Mm.212789	NM_011144	Ppara	Peroxisome proliferator activated receptor alpha
F09	Mm.3020	NM_011146	Pparg	Peroxisome proliferator activated receptor gamma
F10	Mm.259072	NM_008904	Ppargc1a	Peroxisome proliferative activated receptor, gamma, coactivator 1 alpha
F11	Mm.377241	NM_201615	Prhr	Prolactin releasing hormone receptor
F12	Mm.277916	NM_011201	Ptprn1	Protein tyrosine phosphatase, non-receptor type 1
G01	Mm.46248	NM_145435	Pyy	Peptide YY
G02	Mm.39884	NM_019511	Ramp3	Receptor (calcitonin) activity modifying protein 3
G03	Mm.425181	NM_011014	Sigmar1	Sigma non-opioid intracellular receptor 1
G04	Mm.157119	NM_019972	Sort1	Sortilin 1
G05	Mm.2453	NM_009215	Sst	Somatostatin
G06	Mm.454968	NM_009217	Sstr2	Somatostatin receptor 2
G07	Mm.32563	NM_009380	Thrb	Thyroid hormone receptor beta
G08	Mm.1293	NM_013693	Tnf	Tumor necrosis factor
G09	Mm.1363	NM_009426	Trh	Thyrotropin releasing hormone
G10	Mm.377116	NM_021290	Ucn	Urocortin
G11	Mm.4177	NM_009463	Ucp1	Uncoupling protein 1 (mitochondrial, proton carrier)
G12	Mm.290924	NM_053009	Zfp91	Zinc finger protein 91
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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