

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

Human Obesity

Cat. no. 330231 PAHS-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™



Description

The Human 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	CNTFR	CPD	CPE	CRHR1
C	DRD1	DRD2	GAL	GALR1	GCG	GCGR	GH1	GH2	GHR	GHRL	GHSR	GLP1R
D	GRP	GRPR	HCRT	HCRTR1	HRH1	HTR2C	IAPP	IL1A	IL1B	IL1R1	IL6	IL6R
E	INS	INSR	LEP	LEPR	MC3R	MCHR1	NMB	NMBR	NMU	NMUR1	NPY	NPY1R
F	NR3C1	NTRK2	NTS	NTSR1	OPRK1	OPRM1	POMC	PPARA	PPARG	PPARGC1A	PRLHR	PTPN1
G	PYY	RAMP3	SIGMAR1	SORT1	SST	SSTR2	THRB	TNF	TRH	UCN	UCP1	ZFP91
H	ACTB	B2M	GAPDH	HPRT1	RPLP0	HGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Hs.531719	NM_001117	ADCYAP1	Adenylate cyclase activating polypeptide 1 (pituitary)
A02	Hs.377783	NM_001118	ADCYAP1R1	Adenylate cyclase activating polypeptide 1 (pituitary) receptor type I
A03	Hs.80485	NM_004797	ADIPOQ	Adiponectin, C1Q and collagen domain containing
A04	Hs.5298	NM_015999	ADIPOR1	Adiponectin receptor 1
A05	Hs.371642	NM_024551	ADIPOR2	Adiponectin receptor 2
A06	Hs.247686	NM_000682	ADRA2B	Adrenergic, alpha-2B-, receptor
A07	Hs.99913	NM_000684	ADRB1	Adrenergic, beta-1-, receptor
A08	Hs.104633	NM_001138	AGRP	Agouti related protein homolog (mouse)
A09	Hs.591940	NM_000482	APOA4	Apolipoprotein A-IV
A10	Hs.276252	NM_139321	ATRN	Attractin
A11	Hs.502182	NM_001709	BDNF	Brain-derived neurotrophic factor
A12	Hs.121484	NM_001727	BRS3	Bombesin-like receptor 3
B01	Hs.529053	NM_000064	C3	Complement component 3
B02	Hs.37058	NM_001741	CALCA	Calcitonin-related polypeptide alpha
B03	Hs.489127	NM_001742	CALCR	CALCITONIN RECEPTOR
B04	Hs.1707	NM_004291	CARTPT	CART prepropeptide
B05	Hs.458426	NM_000729	CCK	Cholecystokinin
B06	Hs.129	NM_000730	CCKAR	Cholecystokinin A receptor
B07	Hs.1340	NM_001832	CLPS	Colipase, pancreatic
B08	Hs.75110	NM_016083	CNR1	Cannabinoid receptor 1 (brain)
B09	Hs.129966	NM_001842	CNTFR	Ciliary neurotrophic factor receptor
B10	Hs.446079	NM_001304	CPD	Carboxypeptidase D
B11	Hs.707992	NM_001873	CPE	Carboxypeptidase E
B12	Hs.417628	NM_004382	CRHR1	Corticotropin releasing hormone receptor 1
C01	Hs.2624	NM_000794	DRD1	Dopamine receptor D1
C02	Hs.73893	NM_000795	DRD2	Dopamine receptor D2
C03	Hs.278959	NM_015973	GAL	Galanin prepropeptide
C04	Hs.272191	NM_001480	GALR1	Galanin receptor 1
C05	Hs.516494	NM_002054	GCG	Glucagon
C06	Hs.208	NM_000160	GCGR	Glucagon receptor
C07	Hs.567275	NM_000515	GH1	Growth hormone 1
C08	Hs.406754	NM_022557	GH2	Growth hormone 2
C09	Hs.125180	NM_000163	GHR	Growth hormone receptor
C10	Hs.590080	NM_016362	GHRL	Ghrelin/obestatin prepropeptide
C11	Hs.248115	NM_004122	GHSR	Growth hormone secretagogue receptor
C12	Hs.389103	NM_002062	GLP1R	Glucagon-like peptide 1 receptor
D01	Hs.153444	NM_002091	GRP	Gastrin-releasing peptide
D02	Hs.567282	NM_005314	GRPR	Gastrin-releasing peptide receptor
D03	Hs.158348	NM_001524	HCRT	Hypocretin (orexin) neuropeptide precursor
D04	Hs.388226	NM_001525	HCRTR1	Hypocretin (orexin) receptor 1
D05	Hs.1570	NM_000861	HRH1	Histamine receptor H1
D06	Hs.149037	NM_000868	HTR2C	5-hydroxytryptamine (serotonin) receptor 2C
D07	Hs.46835	NM_000415	IAPP	Islet amyloid polypeptide
D08	Hs.1722	NM_000575	IL1A	Interleukin 1, alpha
D09	Hs.126256	NM_000576	IL1B	Interleukin 1, beta

Position	UniGene	GenBank	Symbol	Description
D10	Hs.701982	NM_000877	IL1R1	Interleukin 1 receptor, type 1
D11	Hs.654458	NM_000600	IL6	Interleukin 6 (interferon, beta 2)
D12	Hs.709210	NM_000565	IL6R	Interleukin 6 receptor
E01	Hs.654579	NM_000207	INS	Insulin
E02	Hs.465744	NM_000208	INSR	Insulin receptor
E03	Hs.194236	NM_000230	LEP	Leptin
E04	Hs.705413	NM_002303	LEPR	Leptin receptor
E05	Hs.248018	NM_019888	MC3R	Melanocortin 3 receptor
E06	Hs.248122	NM_005297	MCHR1	Melanin-concentrating hormone receptor 1
E07	Hs.386470	NM_021077	NMB	Neuromedin B
E08	Hs.654478	NM_002511	NMBR	Neuromedin B receptor
E09	Hs.418367	NM_006681	NMU	Neuromedin U
E10	Hs.471619	NM_006056	NMUR1	Neuromedin U receptor 1
E11	Hs.1832	NM_000905	NPY	Neuropeptide Y
E12	Hs.519057	NM_000909	NPY1R	Neuropeptide Y receptor Y1
F01	Hs.122926	NM_000176	NR3C1	Nuclear receptor subfamily 3, group C, member 1 (glucocorticoid receptor)
F02	Hs.494312	NM_006180	NTRK2	Neurotrophic tyrosine kinase, receptor, type 2
F03	Hs.80962	NM_006183	NTS	Neurotensin
F04	Hs.590869	NM_002531	NTSR1	Neurotensin receptor 1 (high affinity)
F05	Hs.106795	NM_000912	OPRK1	Opioid receptor, kappa 1
F06	Hs.2353	NM_000914	OPRM1	Opioid receptor, mu 1
F07	Hs.1897	NM_000939	POMC	Proopiomelanocortin
F08	Hs.103110	NM_005036	PPARA	Peroxisome proliferator-activated receptor alpha
F09	Hs.162646	NM_015869	PPARG	Peroxisome proliferator-activated receptor gamma
F10	Hs.527078	NM_013261	PPARGC1A	Peroxisome proliferator-activated receptor gamma, coactivator 1 alpha
F11	Hs.248119	NM_004248	PRLHR	Prolactin releasing hormone receptor
F12	Hs.417549	NM_002827	PTPN1	Protein tyrosine phosphatase, non-receptor type 1
G01	Hs.169249	NM_004160	PYY	Peptide YY
G02	Hs.25691	NM_005856	RAMP3	Receptor (G protein-coupled) activity modifying protein 3
G03	Hs.522087	NM_005866	SIGMAR1	Sigma non-opioid intracellular receptor 1
G04	Hs.485195	NM_002959	SORT1	Sortilin 1
G05	Hs.12409	NM_001048	SST	Somatostatin
G06	Hs.514451	NM_001050	SSTR2	Somatostatin receptor 2
G07	Hs.187861	NM_000461	THRB	Thyroid hormone receptor, beta (erythroblastic leukemia viral (v-erb-a) oncogene homolog 2, avian)
G08	Hs.241570	NM_000594	TNF	Tumor necrosis factor
G09	Hs.182231	NM_007117	TRH	Thyrotropin-releasing hormone
G10	Hs.534363	NM_003353	UCN	Urocortin
G11	Hs.249211	NM_021833	UCP1	Uncoupling protein 1 (mitochondrial, proton carrier)
G12	Hs.524920	NM_053023	ZFP91	Zinc finger protein 91 homolog (mouse)
H01	Hs.520640	NM_001101	ACTB	Actin, beta
H02	Hs.534255	NM_004048	B2M	Beta-2-microglobulin
H03	Hs.592355	NM_002046	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase
H04	Hs.412707	NM_000194	HPRT1	Hypoxanthine phosphoribosyltransferase 1
H05	Hs.546285	NM_001002	RPLP0	Ribosomal protein, large, P0
H06	N/A	SA_00105	HGDC	Human 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.

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.

Trademarks: QIAGEN® (QIAGEN Group); Applied Biosystems®, ViiA™, StepOnePlus™, ROX™ (Applied Biosystems Corporation or its subsidiaries); Bio-Rad®, iCycler®, iQ™, MyiQ™, Chromo4™, CFX96™, DNA Engine Opticon®, CFX384™ (Bio-Rad Laboratories, Inc.); Stratagene®, Mx3005P®, Mx3000P®, Mx4000® (Stratagene); Eppendorf®, Mastercycler® (Eppendorf AG); Roche®, LightCycler® (Roche Group); Fluidigm® BioMark™ (Fluidigm Corporation); SYBR® (Molecular Probes, Inc.).

1066029 03/2011 © 2011 QIAGEN, all rights reserved.

www.qiagen.com

Canada ■ 800-572-9613

Ireland ■ 1800 555 049

Norway ■ 800-18859

China ■ 8621-3865-3865

Italy ■ 800-787980

Singapore ■ 1800-742-4368

Denmark ■ 80-885945

Japan ■ 03-6890-7300

Spain ■ 91-630-7050

Australia ■ 1-800-243-800

Finland ■ 0800-914416

Korea (South) ■ 080-000-7145

Sweden ■ 020-790282

Austria ■ 0800/281010

France ■ 01-60-920-930

Luxembourg ■ 8002 2076

Switzerland ■ 055-254-22-11

Belgium ■ 0800-79612

Germany ■ 02103-29-12000

Mexico ■ 01-800-7742-436

UK ■ 01293-422-911

Brazil ■ 0800-557779

Hong Kong ■ 800 933 965

The Netherlands ■ 0800 0229592

USA ■ 800-426-8157



Sample & Assay Technologies