

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

Rat Housekeeping Genes

Cat. no. 330231 PARN-000ZA

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 Rat Housekeeping Genes RT² Profiler PCR Array profiles the expression of eight (8) identical sets of twelve (12) commonly used housekeeping genes. This array can be easily used to identify genes with a constant level of expression among your different experimental conditions for use in normalizing your relative gene expression profiling experiment. Housekeeping genes encode proteins that are usually essential for the maintenance of cellular function. Their expression often, but not always, remains constant under most experimental conditions. Some of these genes may be regulated under certain circumstances and may vary with cell type. Using real-time PCR, you can easily and reliably evaluate the expression of these housekeeping genes among your different experiment conditions 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	Actb	B2m	Hprt1	Hsp90ab1	Ldha	Nono	Pgk1	Ppih	Rplp1	Sdha	Tbp	Tfrc
B	Actb	B2m	Hprt1	Hsp90ab1	Ldha	Nono	Pgk1	Ppih	Rplp1	Sdha	Tbp	Tfrc
C	Actb	B2m	Hprt1	Hsp90ab1	Ldha	Nono	Pgk1	Ppih	Rplp1	Sdha	Tbp	Tfrc
D	Actb	B2m	Hprt1	Hsp90ab1	Ldha	Nono	Pgk1	Ppih	Rplp1	Sdha	Tbp	Tfrc
E	Actb	B2m	Hprt1	Hsp90ab1	Ldha	Nono	Pgk1	Ppih	Rplp1	Sdha	Tbp	Tfrc
F	Actb	B2m	Hprt1	Hsp90ab1	Ldha	Nono	Pgk1	Ppih	Rplp1	Sdha	Tbp	Tfrc
G	Actb	B2m	Hprt1	Hsp90ab1	Ldha	Nono	Pgk1	Ppih	Rplp1	Sdha	Tbp	Tfrc
H	Actb	B2m	Hprt1	Hsp90ab1	Ldha	Nono	Pgk1	Ppih	Rplp1	Sdha	Tbp	Tfrc

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Rn.94978	NM_031144	Actb	Actin, beta
A02	Rn.1868	NM_012512	B2m	Beta-2 microglobulin
A03	Rn.47	NM_012583	Hprt1	Hypoxanthine phosphoribosyltransferase 1
A04	Rn.98667	NM_001004082	Hsp90ab1	Heat shock protein 90 alpha (cytosolic), class B member 1
A05	Rn.107896	NM_017025	Ldha	Lactate dehydrogenase A
A06	Rn.8381	NM_001012356	Nono	Non-POU domain containing, octamer-binding
A07	Rn.108127	NM_053291	Pgk1	Phosphoglycerate kinase 1
A08	Rn.129133	XM_345576	Ppih	Peptidylprolyl isomerase H (cyclophilin H)
A09	Rn.973	NM_001007604	Rplp1	Ribosomal protein, large, P1
A10	Rn.101725	NM_130428	Sdha	Succinate dehydrogenase complex, subunit A, flavoprotein (Fp)
A11	Rn.22712	NM_001004198	Tbp	TATA box binding protein
A12	Rn.98672	NM_022712	Tfrc	Transferrin receptor
B01	Rn.94978	NM_031144	Actb	Actin, beta
B02	Rn.1868	NM_012512	B2m	Beta-2 microglobulin
B03	Rn.47	NM_012583	Hprt1	Hypoxanthine phosphoribosyltransferase 1
B04	Rn.98667	NM_001004082	Hsp90ab1	Heat shock protein 90 alpha (cytosolic), class B member 1
B05	Rn.107896	NM_017025	Ldha	Lactate dehydrogenase A
B06	Rn.8381	NM_001012356	Nono	Non-POU domain containing, octamer-binding
B07	Rn.108127	NM_053291	Pgk1	Phosphoglycerate kinase 1
B08	Rn.129133	XM_345576	Ppih	Peptidylprolyl isomerase H (cyclophilin H)
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C01	Rn.94978	NM_031144	Actb	Actin, beta
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H12	Rn.98672	NM_022712	Tfrc	Transferrin receptor

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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