

# RT<sup>2</sup> Profiler PCR Array (Rotor-Gene<sup>®</sup> Format)

## Rhesus Macaque Insulin Signaling Pathway

Cat. no. 330231 PAQQ-030ZR

For pathway expression analysis

Format	For use with the following real-time cyclers
RT <sup>2</sup> Profiler PCR Array, Format R	Rotor-Gene Q, other Rotor-Gene cyclers

### Description

The Rhesus Macaque Insulin Signaling Pathway RT<sup>2</sup> Profiler PCR Array profiles the expression of 84 genes related to insulin-responsive genes. This array represents genes associated with the insulin receptor and target genes for insulin signaling. Genes involved in the metabolism of carbohydrates, lipids, and proteins and other related biological responses are also included. This array contains members of the PI3K and MAPK Pathways as well. Using realtime PCR, you can easily and reliably analyze expression of a focused panel of insulin-responsive genes with this array.

For further details, consult the *RT<sup>2</sup> Profiler PCR Array Handbook*.

### Shipping and storage

RT<sup>2</sup> 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 RT<sup>2</sup> Profiler PCR Array format for your real-time cycler (see table above).

**Note:** Open the package and store the products appropriately immediately on receipt.



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Sample & Assay Technologies

## 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: RT<sup>2</sup> Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Mmu.13382	XM_001111823	ACACA	Acetyl-CoA carboxylase alpha
A02	Mmu.12401	XM_001102134	ACOX1	Acyl-CoA oxidase 1, palmitoyl
A03	Mmu.5657	XM_002798210	ADRA1D	Adrenergic, alpha-1D-, receptor
A04	Mmu.3481	NM_001044730	ADRB3	Adrenergic, beta-3-, receptor
A05	Mmu.1599	XM_001085265	AKT1	V-akt murine thymoma viral oncogene homolog 1
A06	Mmu.1386	XM_001093461	AKT2	V-akt murine thymoma viral oncogene homolog 2
A07	N/A	XM_001104624	AKT3	V-akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma)
A08	Mmu.15274	XM_001095044	ARAF	V-raf murine sarcoma 3611 viral oncogene homolog
A09	Mmu.16103	XM_001110285	BCL2L1	BCL2-like 1
A10	Mmu.4676	XM_001082428	CAP1	CAP, adenylate cyclase-associated protein 1 (yeast)
A11	Mmu.12994	XM_001104812	CBL	Cas-Br-M (murine) ecotropic retroviral transforming sequence
A12	N/A	XM_001111248	DOK1	Docking protein 1, 62kDa (downstream of tyrosine kinase 1)
B01	Mmu.15572	XM_001112076	DUSP14	Dual specificity phosphatase 14
B02	Mmu.12035	XM_001101480	EIF2B1	Eukaryotic translation initiation factor 2B, subunit 1 alpha, 26kDa
B03	N/A	XM_001091933	EIF4EBP1	Eukaryotic translation initiation factor 4E binding protein 1
B04	Mmu.2940	XM_001105868	ERCC1	Excision repair cross-complementing rodent repair deficiency, complementation group 1 (includes overlapping antisense sequence)
B05	N/A	XM_001103854	EXOC7	Exocyst complex component 7
B06	Mmu.18898	XM_001105272	FBP1	Fructose-1,6-bisphosphatase 1
B07	Mmu.9667	NM_001105168	FLOT1	Flotillin 1
B08	Mmu.1563	NM_001098399	FOS	FBJ murine osteosarcoma viral oncogene homolog
B09	N/A	XM_001084662	FRS3	Fibroblast growth factor receptor substrate 3
B10	Mmu.11320	XM_001112333	G6PC	Glucose-6-phosphatase, catalytic subunit
B11	Mmu.11170	XM_001093044	GAB1	GRB2-associated binding protein 1
B12	N/A	XM_001093871	GCG	Glucagon
C01	Mmu.14885	XM_001093035	GCK	Glucokinase (hexokinase 4)
C02	Mmu.3010	XM_001102726	GPD1	Glycerol-3-phosphate dehydrogenase 1 (soluble)
C03	Mmu.13002	XM_001083447	GRB10	Growth factor receptor-bound protein 10
C04	Mmu.11376	XM_001104964	GSK3A	Glycogen synthase kinase 3 alpha
C05	Mmu.12468	XM_001110431	GSK3B	Glycogen synthase kinase 3 beta
C06	Mmu.13636	XM_001111706	HK2	Hexokinase 2
C07	N/A	XM_001085804	HRAS	V-Ha-ras Harvey rat sarcoma viral oncogene homolog
C08	N/A	XM_001100407	IGF1R	Insulin-like growth factor 1 receptor
C09	Mmu.3986	XM_001085935	IGFBP1	Insulin-like growth factor binding protein 1
C10	N/A	XM_001094337	INSR	Insulin receptor
C11	N/A	XM_001092171	IRS1	Insulin receptor substrate 4
C12	N/A	XM_002800838	IRS2	Insulin receptor substrate 2
D01	N/A	XM_001109882	IRS4	Similar to insulin receptor substrate 1
D02	Mmu.12293	XM_001082163	KLF10	Kruppel-like factor 10
D03	N/A	XM_001101840	KRAS	V-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog
D04	Mmu.3795	NM_001032906	LDLR	Low density lipoprotein receptor
D05	Mmu.3445	NM_001042755	LEP	Leptin
D06	Mmu.12834	XM_001093122	LOC699700	Ras-related protein R-Ras2-like
D07	Mmu.9707	XM_001095326	LOC702041	Growth factor receptor-bound protein 2-like
D08	N/A	XM_001098955	LOC710340	Protein kinase C zeta type-like
D09	Mmu.808	XM_001102454	LOC713191	CCAAT/enhancer-binding protein beta-like
D10	Mmu.18417	XM_001114665	LOC716452	Transcription factor AP-1-like
D11	Mmu.11174	XM_001107921	LOC716899	Ribosomal protein S6 kinase alpha-2-like
D12	N/A	XM_001108401	LOC717153	CCAAT/enhancer-binding protein alpha-like
E01	Mmu.1799	XM_001117186	LOC721138	Transmembrane protease serine 9-like
E02	Mmu.3115	XM_001118743	LOC722620	Long-chain fatty acid transport protein 4-like
E03	Mmu.4375	XM_001110225	MAP2K1	Mitogen-activated protein kinase kinase 1
E04	Mmu.13662	XM_001089600	MAPK1	Mitogen-activated protein kinase 1
E05	Mmu.13621	XM_001114820	NCK1	NCK adaptor protein 1
E06	Mmu.3443	XM_001106245	NOS2	Nitric oxide synthase 2, inducible
E07	Mmu.3466	NM_001032814	NPY	Neuropeptide Y
E08	Mmu.11798	XM_001111487	PCK2	Phosphoenolpyruvate carboxykinase 2 (mitochondrial)

Position	UniGene	GenBank	Symbol	Description
E09	Mmu.13858	XM_001109162	PIK3CA	Phosphoinositide-3-kinase, catalytic, alpha polypeptide
E10	Mmu.13833	XM_001113960	PIK3CB	Phosphoinositide-3-kinase, catalytic, beta polypeptide
E11	Mmu.12209	XM_001089423	PIK3R1	Phosphoinositide-3-kinase, regulatory subunit 1 (alpha)
E12	N/A	XM_001114094	PIK3R2	Phosphoinositide-3-kinase, regulatory subunit 2 (beta)
F01	N/A	XM_001112902	PKLR	Pyruvate kinase, liver and RBC
F02	Mmu.9617	XM_001091427	PKM2	Pyruvate kinase, muscle
F03	Mmu.3422	NM_001032860	PPARG	Peroxisome proliferator-activated receptor gamma
F04	Mmu.2780	XM_001117941	PPP1CA	Protein phosphatase 1, catalytic subunit, alpha isozyme
F05	N/A	XM_001100958	PPP1R3A	Protein phosphatase 1, regulatory (inhibitor) subunit 3A
F06	Mmu.15377	XM_001116809	PRKCG	Protein kinase C, gamma
F07	Mmu.3733	XM_001089400	PRKCI	Protein kinase C, iota
F08	Mmu.3287	NM_001047128	PRL	Prolactin
F09	Mmu.12303	XM_001096053	PTPN1	Protein tyrosine phosphatase, non-receptor type 1
F10	Mmu.4302	XM_001095521	PTPRF	Protein tyrosine phosphatase, receptor type, F
F11	Mmu.9777	XM_001086154	RAF1	V-raf-1 murine leukemia viral oncogene homolog 1
F12	N/A	XM_001097265	RETN	Resistin
G01	Mmu.11520	XM_001091428	RNASE4	Ribonuclease, RNase A family, 4
G02	Mmu.3244	XM_001115362	RRAS	Related RAS viral (r-ras) oncogene homolog
G03	N/A	XM_001107647	SERPINE1	Serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1
G04	Mmu.11404	XM_001112447	SHC1	SHC (Src homology 2 domain containing) transforming protein 1
G05	Mmu.3979	XM_001090868	SLC2A1	Solute carrier family 2 (facilitated glucose transporter), member 1
G06	N/A	XM_001107391	SLC2A4	Solute carrier family 2 (facilitated glucose transporter), member 4
G07	Mmu.16424	XM_001087237	SORBS2	Sorbin and SH3 domain containing 2
G08	Mmu.12340	XM_001103238	SOS1	Son of sevenless homolog 1 (Drosophila)
G09	Mmu.1143	XM_001095392	SREBF1	Sterol regulatory element-binding protein 1-like
G10	N/A	XM_001089819	TG	Thyroglobulin
G11	Mmu.3484	XM_001090457	UCP1	Uncoupling protein 1 (mitochondrial, proton carrier)
G12	Mmu.3550	XM_001089925	VEGFA	Vascular endothelial growth factor A
H01	Mmu.4974	NM_001033084	ACTB	Actin, beta
H02	Mmu.5037	NM_001047137	B2M	Beta-2-microglobulin
H03	Mmu.3145	XM_001105471	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase
H04	Mmu.12316	XM_001097691	LOC709186	Hypoxanthine-guanine phosphoribosyltransferase-like
H05	Mmu.2512	XM_001115079	RPL13A	Ribosomal protein L13A
H06	N/A	SA_00125	QGDC	Rhesus Macaque 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, RT<sup>2</sup> Profiler PCR Arrays should be used together with the RT<sup>2</sup> First Strand Kit for cDNA synthesis and RT<sup>2</sup> SYBR<sup>®</sup> Green qPCR Mastermixes for PCR.

Product	Contents	Cat. no.
RT <sup>2</sup> First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT <sup>2</sup> SYBR Green ROX <sup>™</sup> 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.

RT<sup>2</sup> 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](http://www.qiagen.com) or can be requested from QIAGEN Technical Services or your local distributor.

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