

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

## Human Tumor Metastasis

Cat. no. 330231 PAHS-028ZR

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 Human Tumor Metastasis RT<sup>2</sup> Profiler PCR Array is designed to represent 84 genes known to be involved in metastasis. Genes selected for this array encode several classes of protein factors including cell adhesion, ECM components, cell cycle, cell growth and proliferation, apoptosis, transcription factors and regulators and other genes related to tumor metastasis. This array can help you investigate the molecular mechanism of metastasis or understand how a particular tumor metastasized. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to metastasis.

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.



## 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	Hs.158932	NM_000038	APC	Adenomatous polyposis coli
A02	Hs.100426	NM_015399	BRMS1	Breast cancer metastasis suppressor 1
A03	Hs.251526	NM_006273	CCL7	Chemokine (C-C motif) ligand 7
A04	Hs.502328	NM_000610	CD44	CD44 molecule (Indian blood group)
A05	Hs.527778	NM_002231	CD82	CD82 molecule
A06	Hs.461086	NM_004360	CDH1	Cadherin 1, type 1, E-cadherin (epithelial)
A07	Hs.116471	NM_001797	CDH11	Cadherin 11, type 2, OB-cadherin (osteoblast)
A08	Hs.171054	NM_004932	CDH6	Cadherin 6, type 2, K-cadherin (fetal kidney)
A09	Hs.512599	NM_000077	CDKN2A	Cyclin-dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4)
A10	Hs.162233	NM_001273	CHD4	Chromodomain helicase DNA binding protein 4
A11	Hs.508716	NM_001846	COL4A2	Collagen, type IV, alpha 2
A12	Hs.143212	NM_003650	CST7	Cystatin F (leukocystatin)
B01	Hs.208597	NM_001328	CTBP1	C-terminal binding protein 1
B02	Hs.534797	NM_001903	CTNNA1	Catenin (cadherin-associated protein), alpha 1, 102kDa
B03	Hs.632466	NM_000396	CTSK	Cathepsin K
B04	Hs.716407	NM_001912	CTSL1	Cathepsin L1
B05	Hs.522891	NM_000609	CXCL12	Chemokine (C-X-C motif) ligand 12
B06	Hs.846	NM_001557	CXCR2	Chemokine (C-X-C motif) receptor 2
B07	Hs.593413	NM_003467	CXCR4	Chemokine (C-X-C motif) receptor 4
B08	Hs.22393	NM_003677	DENR	Density-regulated protein
B09	Hs.523329	NM_004442	EPHB2	EPH receptor B2
B10	Hs.434059	NM_001986	ETV4	Ets variant 4
B11	Hs.374477	NM_005243	EWSR1	Ewing sarcoma breakpoint region 1
B12	Hs.481371	NM_005245	FAT1	FAT tumor suppressor homolog 1 (Drosophila)
C01	Hs.165950	NM_002011	FGFR4	Fibroblast growth factor receptor 4
C02	Hs.646917	NM_002020	FLT4	Fms-related tyrosine kinase 4
C03	Hs.203717	NM_002026	FN1	Fibronectin 1
C04	Hs.333418	NM_014164	FXYD5	FXYD domain containing ion transport regulator 5
C05	Hs.82963	NM_000825	GNRH1	Gonadotropin-releasing hormone 1 (luteinizing-releasing hormone)
C06	Hs.396530	NM_000601	HGF	Hepatocyte growth factor (hepapoietin A; scatter factor)
C07	Hs.44227	NM_006665	HPSE	Heparanase
C08	Hs.37003	NM_005343	HRAS	V-Ha-ras Harvey rat sarcoma viral oncogene homolog
C09	Hs.90753	NM_006410	HTATIP2	HIV-1 Tat interactive protein 2, 30kDa
C10	Hs.160562	NM_000618	IGF1	Insulin-like growth factor 1 (somatomedin C)
C11	Hs.83077	NM_001562	IL18	Interleukin 18 (interferon-gamma-inducing factor)
C12	Hs.126256	NM_000576	IL1B	Interleukin 1, beta
D01	Hs.524484	NM_002206	ITGA7	Integrin, alpha 7
D02	Hs.218040	NM_000212	ITGB3	Integrin, beta 3 (platelet glycoprotein IIIa, antigen CD61)
D03	Hs.95008	NM_002256	KISS1	KISS-1 metastasis-suppressor
D04	Hs.208229	NM_032551	KISS1R	KISS1 receptor
D05	Hs.505033	NM_004985	KRAS	V-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog
D06	Hs.599039	NM_006500	MCAM	Melanoma cell adhesion molecule
D07	Hs.484551	NM_002392	MDM2	Mdm2 p53 binding protein homolog (mouse)
D08	Hs.132966	NM_000245	MET	Met proto-oncogene (hepatocyte growth factor receptor)
D09	Hs.444986	NM_006838	METAP2	Methionyl aminopeptidase 2
D10	Hs.651869	NM_002410	MGAT5	Mannosyl (alpha-1,6-)-glycoprotein beta-1,6-N-acetyl-glucosaminyltransferase
D11	Hs.2258	NM_002425	MMP10	Matrix metalloproteinase 10 (stromelysin 2)
D12	Hs.143751	NM_005940	MMP11	Matrix metalloproteinase 11 (stromelysin 3)
E01	Hs.2936	NM_002427	MMP13	Matrix metalloproteinase 13 (collagenase 3)
E02	Hs.513617	NM_004530	MMP2	Matrix metalloproteinase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase)
E03	Hs.375129	NM_002422	MMP3	Matrix metalloproteinase 3 (stromelysin 1, progelatinase)
E04	Hs.2256	NM_002423	MMP7	Matrix metalloproteinase 7 (matrilysin, uterine)
E05	Hs.297413	NM_004994	MMP9	Matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase)
E06	Hs.525629	NM_004689	MTA1	Metastasis associated 1
E07	Hs.700429	NM_014751	MTSS1	Metastasis suppressor 1

Position	UniGene	GenBank	Symbol	Description
E08	Hs.202453	NM_002467	MYC	V-myc myelocytomatosis viral oncogene homolog (avian)
E09	Hs.437922	NM_005376	MYCL1	V-myc myelocytomatosis viral oncogene homolog 1, lung carcinoma derived (avian)
E10	Hs.187898	NM_000268	NF2	Neurofibromin 2 (merlin)
E11	Hs.118638	NM_000269	NME1	Non-metastatic cells 1, protein (NM23A) expressed in
E12	Hs.9235	NM_005009	NME4	Non-metastatic cells 4, protein expressed in
F01	Hs.279522	NM_006981	NR4A3	Nuclear receptor subfamily 4, group A, member 3
F02	Hs.466871	NM_002659	PLAUR	Plasminogen activator, urokinase receptor
F03	Hs.409965	NM_002687	PNN	Pinin, desmosome associated protein
F04	Hs.500466	NM_000314	PTEN	Phosphatase and tensin homolog
F05	Hs.408528	NM_000321	RB1	Retinoblastoma 1
F06	Hs.494178	NM_006914	RORB	RAR-related orphan receptor B
F07	Hs.449909	NM_002295	RPSA	Ribosomal protein SA
F08	Hs.414795	NM_000602	SERPINE1	Serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1
F09	Hs.436687	NM_003011	SET	SET nuclear oncogene
F10	Hs.12253	NM_005901	SMAD2	SMAD family member 2
F11	Hs.75862	NM_005359	SMAD4	SMAD family member 4
F12	Hs.195659	NM_005417	SRC	V-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (avian)
G01	Hs.514451	NM_001050	SSTR2	Somatostatin receptor 2
G02	Hs.371720	NM_003177	SYK	Spleen tyrosine kinase
G03	Hs.475018	NM_005650	TCF20	Transcription factor 20 (AR1)
G04	Hs.645227	NM_000660	TGFB1	Transforming growth factor, beta 1
G05	Hs.633514	NM_003255	TIMP2	TIMP metalloproteinase inhibitor 2
G06	Hs.644633	NM_000362	TIMP3	TIMP metalloproteinase inhibitor 3
G07	Hs.591665	NM_003256	TIMP4	TIMP metalloproteinase inhibitor 4
G08	Hs.478275	NM_003810	TNFSF10	Tumor necrosis factor (ligand) superfamily, member 10
G09	Hs.654481	NM_000546	TP53	Tumor protein p53
G10	Hs.155942	NM_002420	TRPM1	Transient receptor potential cation channel, subfamily M, member 1
G11	Hs.160411	NM_000369	TSHR	Thyroid stimulating hormone receptor
G12	Hs.73793	NM_003376	VEGFA	Vascular endothelial growth factor A
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, 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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