ExProfile™ Human Tumor Metastasis Related Gene qPCR Array

For focused group profiling of human tumor metastasis related gene expression

Cat. No. QG056-A (1 x 96-well plate, Format A)
Cat. No. QG056-B (1 x 96-well plate, Format B)
Cat. No. QG056-C (1 x 96-well plate, Format C)
Cat. No. QG056-D (1 x 96-well plate, Format D)
Cat. No. QG056-E (1 x 96-well plate, Format E)

Plates available individually or as a set of 6. Each set contains 84 unique gene primer pairs deposited in one 96-well plate.

Introduction

The ExProfile human tumor metastasis related gene qPCR array profiles the expression of 84 human genes related to tumor metastasis. These genes are carefully chosen for their close pathway correlation based on a thorough literature search of peer-reviewed publications, and primarily include genes that encode factors involved in cell adhesion, ECM components, cell cycle, cell growth and proliferation, and apoptosis. This array allows researchers to study a particular set of genes to gain understanding of their roles in tumor metastasis.

- QG056 plate 01: 84 unique gene PCR primer pairs

Shipping and storage conditions

Shipped at room temperature
Stable for at least 6 months when stored at -20℃

Array format

GeneCopoeia provides five qPCR array formats (A, B, C, D, and E) suitable for use with the following real-time cyclers.

Important note: Upon receipt, please check to make sure that the correct array format was ordered to ensure compatibility with your qPCR instrument.

Plate format	Instrument provider	qPCR instrument model
A (96-well)	Applied Biosystems	5700, 7000, 7300, 7500, 7700, 7900HT (Standard 96-well block), ViiA™7 (Standard 96-well block)
B (96-well)	Applied Biosystems	7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA™7 (Fast block)
C (96-well)	Bio-Rad Laboratories	iCycler iQ®, MyiQ™, iQ™5
D (96-well)	Bio-Rad Laboratories	CFX96™, DNA Engine Opticon™, DNA Engine Opticon 2™, Chromo4™
E (96-well)	Roche Applied Science	LightCycler® 480 (96-well block)

Quality control

1. Each pair of primers in the ExProfile gene qPCR array has been experimentally validated to yield a single dissociation curve peak and to generate a single amplicon of the correct size for the targeted gene.
2. The positive PCR controls (PCR) have been verified to amplify a single amplicon of the correct size with Ct values around **20±2**.
3. The Spike-in reverse transcription controls (RT) have been verified to amplify a single amplicon of the correct size with Ct values around **20±3**.
4. R^2 > 0.99 was observed for high inter/ intra-array reproducibility.

Materials required but not provided

All-in-One™ First-Strand cDNA Synthesis Kit
All-in-One™ qPCR Mix
Total RNA extraction kit (RNAzol® RT RNA extraction reagent is recommended)
DNase/RNase free tips, PCR reaction tubes, 1.5 ml microcentrifuge tubes
5 ml and 10 ml graduated pipettes, beakers, flasks, and cylinders
10 µl to 1,000 µl adjustable single channel micropipettes with disposable tips
5 µl to 20 µl adjustable multichannel micropipette, disposable tips, and reservoir
qPCR instrument, compatible with gene qPCR arrays ordered

Array layout

	1	2	3	4	5	6	7	8	9	10	11	12
A	APC	BRMS1	CCL7	CD44	CDH1	CDH11	CDH6	CDKN2A	CHD4	COL4A2	CST7	CTNNA1
B	CTSK	CTSL1	CXCL12	CXCR4	DENR	EPHB2	ETV4	EWSR1	FAT	FGFR4	FLT4	FN1
C	FXYD5	GNRH1	KISS1R	HGF	HPSE	HRAS	HTATIP2	IGF1	IL18	IL1B	IL8RB	ITGA7
D	ITGB3	CD82	KISS1	RPSA	MCAM	MDM2	MET	METAP2	MGAT5	MMP10	MMP11	MMP3
E	MMP7	MMP9	MTA1	MTSS1	MYC	MYCL1	NF2	NME1	NME2	NME4	NR4A3	PLAUR
F	PNN	PTEN	RB1	RORB	SET	SMAD2	SMAD4	SRC	SSTR2	SYK	TCF20	TGFB1
G	TIMP2	TIMP3	TIMP4	TNFSF10	TP53	TRPM1	TSHR	VEGFA	CD44	HPRT1	FN1	TSHR
H	**HGDC**	**HGDC**	**GAPDH**	**ACTB**	**B2M**	**RPL13A**	**HPRT1**	**RN18S1**	**RT**	**RT**	**PCR**	**PCR**

Figure1. Illustration of QG056 plate 01

- **Gene primer pairs**: 84 wells (A row to G row) are designated for a real-time PCR assay for genes (see the primer list).
- **HK1-6**: Six pre-deposited housekeeping gene (HK1-6) primer pairs, which can be used as endogenous positive controls as well as for array normalization.
- **GDC**: Genomic DNA controls, which can be used to specifically detect genomic DNA contamination with a high level of sensitivity.
- **RT**: Spike-in reverse transcription controls, which can be used to monitor the efficiency of the RT reactions. These pre-deposited primer pairs specifically amplify the cDNA template reverse transcribed from the spike-in control RNA in the sample.
- **PCR**: Positive PCR controls, which are used to verify the PCR efficiency by amplifying the pre-deposited DNA template with its specific pre-deposited primer pairs.

Gene primer list

Plate	Position	Catalog No. of Primer	Accession No. of Gene	Symbol
QG056-01	A01	HQP009024	NM_000038	APC
QG056-01	A02	HQP006794	NM_015399	BRMS1
QG056-01	A03	HQP016627	NM_006273	CCL7
QG056-01	A04	HQP022972	NM_000610	CD44
QG056-01	A05	HQP023466	NM_004360	CDH1
QG056-01	A06	HQP000131	NM_001797	CDH11
QG056-01	A07	HQP000065	NM_004932	CDH6
QG056-01	A08	HQP000369	NM_000077	CDKN2A
QG056-01	A09	HQP001249	NM_001273	CHD4
QG056-01	A10	HQP002506	NM_001846	COL4A2
QG056-01	A11	HQP021171	NM_003650	CST7
QG056-01	A12	HQP003515	NM_001903	CTNNA1
QG056-01	B01	HQP003626	NM_000396	CTSK
QG056-01	B02	HQP003630	NM_001912	CTSL1
QG056-01	B03	HQP016669	NM_000609	CXCL12
QG056-01	B04	HQP018803	NM_003467	CXCR4
QG056-01	B05	HQP021285	NM_003677	DENR
QG056-01	B06	HQP004939	NM_004442	EPHB2
QG056-01	B07	HQP053982	NM_001986	ETV4
QG056-01	B08	HQP005034	NM_005243	EWSR1
QG056-01	B09	HQP005141	NM_005245	FAT
QG056-01	B10	HQP005439	NM_002011	FGFR4
QG056-01	B11	HQP005915	NM_002020	FLT4
QG056-01	B12	HQP006022	NM_002026	FN1
QG056-01	C01	HQP013317	NM_014164	FXYD5
QG056-01	C02	HQP007777	NM_000825	GNRH1
QG056-01	C03	HQP020835	NM_032551	KISS1R
QG056-01	C04	HQP008800	NM_000601	HGF
QG056-01	C05	HQP000974	NM_006665	HPSE
QG056-01	C06	HQP009036	NM_005343	HRAS
QG056-01	C07	HQP000660	NM_006410	HTATIP2
QG056-01	C08	HQP009518	NM_000618	IGF1
QG056-01	C09	HQP009718	NM_001562	IL18
QG056-01	C10	HQP009641	NM_000576	IL1B
QG056-01	C11	HQP009681	NM_001557	IL8RB
QG056-01	C12	HQP009800	NM_002206	ITGA7
QG056-01	D01	HQP009818	NM_000212	ITGB3
QG056-01	D02	HQP009861	NM_002231	CD82
QG056-01	D03	HQP010098	NM_002256	KISS1
QG056-01	D04	HQP053983	NM_002295	RPSA
QG056-01	D05	HQP011099	NM_006500	MCAM

QG056-01	D06	HQP011135	NM_002392	MDM2
QG056-01	D07	HQP011181	NM_000245	MET
QG056-01	D08	HQP001123	NM_006838	METAP2
QG056-01	D09	HQP011196	NM_002410	MGAT5
QG056-01	D10	HQP011264	NM_002425	MMP10
QG056-01	D11	HQP011265	NM_005940	MMP11
QG056-01	D12	HQP011257	NM_002422	MMP3
QG056-01	E01	HQP011258	NM_002423	MMP7
QG056-01	E02	HQP011263	NM_004994	MMP9
QG056-01	E03	HQP022096	NM_004689	MTA1
QG056-01	E04	HQP023201	NM_014751	MTSS1
QG056-01	E05	HQP011597	NM_002467	MYC
QG056-01	E06	HQP011601	NM_005376	MYCL1
QG056-01	E07	HQP011778	NM_000268	NF2
QG056-01	E08	HQP011853	NM_000269	NME1
QG056-01	E09	HQP053986	NM_002512	NME2
QG056-01	E10	HQP011857	NM_005009	NME4
QG056-01	E11	HQP019536	NM_006981	NR4A3
QG056-01	E12	HQP013207	NM_002659	PLAUR
QG056-01	F01	HQP013392	NM_002687	PNN
QG056-01	F02	HQP015535	NM_000314	PTEN
QG056-01	F03	HQP016131	NM_000321	RB1
QG056-01	F04	HQP016377	NM_006914	RORB
QG056-01	F05	HQP016841	NM_003011	SET
QG056-01	F06	HQP054007	NM_005901	SMAD2
QG056-01	F07	HQP010961	NM_005359	SMAD4
QG056-01	F08	HQP017696	NM_005417	SRC
QG056-01	F09	HQP017744	NM_001050	SSTR2
QG056-01	F10	HQP017845	NM_003177	SYK
QG056-01	F11	HQP017971	NM_005650	TCF20
QG056-01	F12	HQP018044	NM_000660	TGFB1
QG056-01	G01	HQP018093	NM_003255	TIMP2
QG056-01	G02	HQP018094	NM_000362	TIMP3
QG056-01	G03	HQP018095	NM_003256	TIMP4
QG056-01	G04	HQP021502	NM_003810	TNFSF10
QG056-01	G05	HQP018175	NM_000546	TP53
QG056-01	G06	HQP011252	NM_002420	TRPM1
QG056-01	G07	HQP018271	NM_000369	TSHR
QG056-01	G08	HQP018481	NM_003376	VEGFA
QG056-01	G09	HQP022974	NM_001001390	CD44
QG056-01	G10	HQP009026	NM_000194	HPRT1
QG056-01	G11	HQP006023	NM_054034	FN1
QG056-01	G12	HQP018272	NM_001018036	TSHR
QG056-01	H01	HGDC		
QG056-01	H02	HGDC		
QG056-01	H03	HQP006940	NM_002046	GAPDH
QG056-01	H04	HQP016381	NM_001101	ACTB

QG056-01	H05	HQP015171	NM_004048	B2M
QG056-01	H06	HQP006171	NM_012423	RPL13A
QG056-01	H07	HQP009026	NM_000194	HPRT1
QG056-01	H08	HQP054253	NR_003286	RN18S1
QG056-01	H09	RT		
QG056-01	H10	RT		
QG056-01	H11	PCR		
QG056-01	H12	PCR		

Limited Use License

Following terms and conditions apply to use of ExProfile™ Human Tumor Metastasis Related Gene qPCR Array (the Product). If the terms and conditions are not acceptable, the Product in its entirety must be returned to GeneCopoeia within 5 calendar days. A limited End-User license is granted to the purchaser of the Product. The Product shall be used by the purchaser for internal research purposes only. The Product is expressly not designed, intended, or warranted for use in humans or for therapeutic or diagnostic use. The Product must not be resold, repackaged or modified for resale, or used to manufacture commercial products or deliver information obtained in service without prior written consent from GeneCopoeia. This Product should be used in accordance with the NIH guidelines developed for recombinant DNA and genetic research. Use of any part of the Product constitutes acceptance of the above terms.

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