

## ExProfile™ Human Adenocarcinoma Gene qPCR Array

For focused group profiling of human adenocarcinoma related genes expression

Cat. No. QG061-A (2 x 96-well plate, Format A)

Cat. No. QG061-B (2 x 96-well plate, Format B)

Cat. No. QG061-C (2 x 96-well plate, Format C)

Cat. No. QG061-D (2 x 96-well plate, Format D)

Cat. No. QG061-E (2 x 96-well plate, Format E)

Available as 1 set or 6 sets. Each set contains 168 unique gene primers deposited in two 96-well plates.

### Introduction

The ExProfile human adenocarcinoma gene qPCR array profiles 168 human genes to aberrantly expressed human genes involved in human adenocarcinoma. These genes are carefully chosen for their close cancer correlation based on a thorough literature search of peer-reviewed publications. Abnormal gene expression is often observed in cancer development and progression. The ExProfile human adenocarcinoma gene qPCR array allows researchers to study the cancer-related genes to gain understanding of their roles in adenocarcinoma pathogenesis.

- QG061 plate 01: 84 unique gene PCR primer pairs
- QG061 plate 02: 84 unique gene PCR primer pairs

### Shipping and storage condition

Shipped at room temperature

Stable for at least 6 months when stored at -20 °C

### 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 receiving, please check to make sure that the correct array format was ordered to ensure the compatibility with your qPCR instrument.

Plate format	Instrument provider	qPCR instrument model
<b>A</b> (96-well)	Applied Biosystems	5700, 7000, 7300, 7500, 7700, 7900HT (Standard 96-well block), ViiA™7 (Standard 96-well block)
<b>B</b> (96-well)	Applied Biosystems	7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA™7 (Fast block)
<b>C</b> (96-well)	Bio-Rad Laboratories	iCycler iQ®, MyiQ™, iQ™5
<b>D</b> (96-well)	Bio-Rad Laboratories	CFX96™, DNA Engine Opticon™, DNA Engine Opticon 2™, Chromo4™
<b>E</b> (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	EGFR	KRAS	TP53	MTHFR	APC	BRAF	XRCC1	ERCC2	IL1B	PTGS2	CYP1A1	TYMS
B	OGG1	VDR	IL1RN	IL10	NAT2	XRCC3	MSH2	MLH1	IL8	TNF	TGFB1	BRCA2
C	PPARG	PIK3CA	MTR	IL6	IGF1	ERCC1	NQO1	XPC	VEGFA	PRSS1	ABCB1	SMAD4
D	IGFBP3	IGF1R	HRAS	EGF	CYP2E1	CDKN2A	NAT1	AIP	TP53BP1	MDM2	FASLG	IL4
E	IGF2	APEX1	HFE	MSH6	NR3C1	EPHX1	CYP19A1	CYP2D6	CHRNA5	CASP7	CASP6	CASP3
F	XRCC2	STK11	CCND1	PTGS1	PTEN	PRSS2	ODC1	NRAS	NOS2A	MSH3	LEPR	AR
G	IL4R	APOE	GNB3	GNAS	GH1	ALDH2	AKT1	DRD2	CYP17A1	CYP2C9	CYP1B1	ADH1C
H	HGDC	HGDC	GAPDH	ACTB	B2M	RPL13A	HPRT1	RN18S1	RT	RT	PCR	PCR

Figure1. Illustration of QG061 plate 01

	1	2	3	4	5	6	7	8	9	10	11	12
A	CHEK2	TP73	NUDT1	DNMT3B	RRM1	TGFBR1	HLA-DRB1	RET	EXO1	UGT2B15	CDH1	SLC23A1
B	CDA	MDC1	CD83	CD14	NRP1	CBS	ABCC3	PDE8B	IRS4	CASP5	CASP4	CASP1
C	AXIN2	CLPTM1L	SHFM1	NEIL1	MCPH1	BAT3	CASP8	XRCC5	XRCC4	USP1	UMPS	UGT2B7
D	TXNRD1	TCN2	SOD2	SLC19A1	SLC10A2	MMS19L	SEPP1	NOD2	SELE	RXRA	RBBP8	RASA1
E	PTGER4	PTGER2	PTCH1	PRKAR1A	CASC1	NEIL3	TRPM7	UGT1A3	UGT1A4	ATR	UGT1A6	UGT1A10
F	TLR9	PMS1	PDPK1	PLCE1	NFKBIA	NFKB1	NFE2L2	NBN	MTRR	ABCC1	MRE11A	MPO
G	MMP12	MMP3	MMP2	MMP1	MEN1	LRMP	LIG4	IRS1	IL18	IL12B	IL12A	IL1A
H	HGDC	HGDC	GAPDH	ACTB	B2M	RPL13A	HPRT1	RN18S1	RT	RT	PCR	PCR

Figure2. Illustration of QG061 plate 02

- **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.

## Product Data Sheet

- **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 reversed 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
QG061-01	A01	HQP004605	NM_005228	EGFR
QG061-01	A02	HQP010133	NM_004985	KRAS
QG061-01	A03	HQP018175	NM_000546	TP53
QG061-01	A04	HQP011547	NM_005957	MTHFR
QG061-01	A05	HQP009024	NM_000038	APC
QG061-01	A06	HQP017733	NM_004333	BRAF
QG061-01	A07	HQP018562	NM_006297	XRCC1
QG061-01	A08	HQP004976	NM_000400	ERCC2
QG061-01	A09	HQP009641	NM_000576	IL1B
QG061-01	A10	HQP015598	NM_000963	PTGS2
QG061-01	A11	HQP003772	NM_000499	CYP1A1
QG061-01	A12	HQP018342	NM_001071	TYMS
QG061-01	B01	HQP012021	NM_002542	OGG1
QG061-01	B02	HQP018474	NM_000376	VDR
QG061-01	B03	HQP009645	NM_000577	IL1RN
QG061-01	B04	HQP009685	NM_000572	IL10
QG061-01	B05	HQP001136	NM_000015	NAT2
QG061-01	B06	HQP018564	NM_005432	XRCC3
QG061-01	B07	HQP011491	NM_000251	MSH2
QG061-01	B08	HQP011235	NM_000249	MLH1
QG061-01	B09	HQP009678	NM_000584	IL8
QG061-01	B10	HQP018141	NM_000594	TNF
QG061-01	B11	HQP018044	NM_000660	TGFB1
QG061-01	B12	HQP017753	NM_000059	BRCA2
QG061-01	C01	HQP013633	NM_005037	PPARG
QG061-01	C02	HQP013150	NM_006218	PIK3CA
QG061-01	C03	HQP011554	NM_000254	MTR
QG061-01	C04	HQP009670	NM_000600	IL6
QG061-01	C05	HQP009518	NM_000618	IGF1
QG061-01	C06	HQP004975	NM_202001	ERCC1
QG061-01	C07	HQP004317	NM_000903	NQO1
QG061-01	C08	HQP018556	NM_004628	XPC
QG061-01	C09	HQP018475	NM_001025366	VEGFA
QG061-01	C10	HQP015083	NM_002769	PRSS1
QG061-01	C11	HQP013100	NM_000927	ABCB1
QG061-01	C12	HQP010961	NM_005359	SMAD4
QG061-01	D01	HQP009544	NM_000598	IGFBP3

Product Data Sheet

QG061-01	D02	HQP009523	NM_000875	IGF1R
QG061-01	D03	HQP009036	NM_005343	HRAS
QG061-01	D04	HQP004599	NM_001963	EGF
QG061-01	D05	HQP003817	NM_000773	CYP2E1
QG061-01	D06	HQP000370	NM_058195	CDKN2A
QG061-01	D07	HQP023467	NM_000662	NAT1
QG061-01	D08	HQP021961	NM_003977	AIP
QG061-01	D09	HQP018176	NM_005657	TP53BP1
QG061-01	D10	HQP011135	NM_002392	MDM2
QG061-01	D11	HQP009671	NM_000639	FASLG
QG061-01	D12	HQP009662	NM_000589	IL4
QG061-01	E01	HQP009529	NM_000612	IGF2
QG061-01	E02	HQP009061	NM_001641	APEX1
QG061-01	E03	HQP008757	NM_000410	HFE
QG061-01	E04	HQP008493	NM_000179	MSH6
QG061-01	E05	HQP008402	NM_001020825	NR3C1
QG061-01	E06	HQP004948	NM_000120	EPHX1
QG061-01	E07	HQP003904	NM_000103	CYP19A1
QG061-01	E08	HQP003814	NM_000106	CYP2D6
QG061-01	E09	HQP001643	NM_000745	CHRNA5
QG061-01	E10	HQP020481	NM_033338	CASP7
QG061-01	E11	HQP020427	NM_001226	CASP6
QG061-01	E12	HQP020297	NM_004346	CASP3
QG061-01	F01	HQP018563	NM_005431	XRCC2
QG061-01	F02	HQP017794	NM_000455	STK11
QG061-01	F03	HQP016204	NM_053056	CCND1
QG061-01	F04	HQP015596	NM_000962	PTGS1
QG061-01	F05	HQP015535	NM_000314	PTEN
QG061-01	F06	HQP015084	NM_002770	PRSS2
QG061-01	F07	HQP012013	NM_002539	ODC1
QG061-01	F08	HQP011914	NM_002524	NRAS
QG061-01	F09	HQP011866	NM_000625	NOS2A
QG061-01	F10	HQP011492	NM_002439	MSH3
QG061-01	F11	HQP010584	NM_002303	LEPR
QG061-01	F12	HQP009801	NM_000044	AR
QG061-01	G01	HQP009664	NM_000418	IL4R
QG061-01	G02	HQP009556	NM_000041	APOE
QG061-01	G03	HQP007767	NM_002075	GNB3
QG061-01	G04	HQP007755	NM_000516	GNAS
QG061-01	G05	HQP007385	NM_000515	GH1
QG061-01	G06	HQP005087	NM_000690	ALDH2
QG061-01	G07	HQP004991	NM_001014431	AKT1
QG061-01	G08	HQP004446	NM_000795	DRD2
QG061-01	G09	HQP003888	NM_000102	CYP17A1
QG061-01	G10	HQP003811	NM_000771	CYP2C9
QG061-01	G11	HQP003775	NM_000104	CYP1B1
QG061-01	G12	HQP002413	NM_000669	ADH1C

Product Data Sheet

QG061-01	H01	HGDC		
QG061-01	H02	HGDC		
QG061-01	H03	HQP006940	NM_002046	GAPDH
QG061-01	H04	HQP016381	NM_001101	ACTB
QG061-01	H05	HQP015171	NM_004048	B2M
QG061-01	H06	HQP006171	NM_012423	RPL13A
QG061-01	H07	HQP009026	NM_000194	HPRT1
QG061-01	H08	HQP054253	NR_003286	RN18S1
QG061-01	H09	RT		
QG061-01	H10	RT		
QG061-01	H11	PCR		
QG061-01	H12	PCR		
QG061-02	A01	HQP001396	NM_001005735	CHEK2
QG061-02	A02	HQP018180	NM_005427	TP73
QG061-02	A03	HQP011544	NM_002452	NUDT1
QG061-02	A04	HQP004414	NM_006892	DNMT3B
QG061-02	A05	HQP054684	NM_001033	RRM1
QG061-02	A06	HQP054057	BC071181	TGFBR1
QG061-02	A07	HQP054047	BC008403	HLA-DRB1
QG061-02	A08	HQP054045	BC004257	RET
QG061-02	A09	HQP054030	NM_130398	EXO1
QG061-02	A10	HQP053916	NM_001076	UGT2B15
QG061-02	A11	HQP023466	NM_004360	CDH1
QG061-02	A12	HQP023414	NM_005847	SLC23A1
QG061-02	B01	HQP023203	NM_001785	CDA
QG061-02	B02	HQP023038	NM_014641	MDC1
QG061-02	B03	HQP022500	NM_001040280	CD83
QG061-02	B04	HQP022490	NM_000591	CD14
QG061-02	B05	HQP021597	NM_003873	NRP1
QG061-02	B06	HQP021518	NM_000071	CBS
QG061-02	B07	HQP021459	NM_003786	ABCC3
QG061-02	B08	HQP021351	NM_001029851	PDE8B
QG061-02	B09	HQP020912	NM_003604	IRS4
QG061-02	B10	HQP020384	NM_004347	CASP5
QG061-02	B11	HQP020332	NM_001225	CASP4
QG061-02	B12	HQP020207	NM_001223	CASP1
QG061-02	C01	HQP020116	NM_004655	AXIN2
QG061-02	C02	HQP019829	NM_030782	CLPTM1L
QG061-02	C03	HQP019268	NM_006304	SHFM1
QG061-02	C04	HQP019141	NM_024608	NEIL1
QG061-02	C05	HQP019129	NM_024596	MCPH1
QG061-02	C06	HQP018983	NM_004639	BAT3
QG061-02	C07	HQP018966	NM_001080124	CASP8
QG061-02	C08	HQP018568	NM_021141	XRCC5
QG061-02	C09	HQP018565	NM_003401	XRCC4
QG061-02	C10	HQP018447	NM_001017415	USP1
QG061-02	C11	HQP018425	NM_000373	UMPS

Product Data Sheet

QG061-02	C12	HQP018418	NM_001074	UGT2B7
QG061-02	D01	HQP018337	NM_182729	TXNRD1
QG061-02	D02	HQP017979	NM_000355	TCN2
QG061-02	D03	HQP017616	NM_000636	SOD2
QG061-02	D04	HQP017482	NM_194255	SLC19A1
QG061-02	D05	HQP017462	NM_000452	SLC10A2
QG061-02	D06	HQP016847	NM_022362	MMS19L
QG061-02	D07	HQP016819	NM_005410	SEPP1
QG061-02	D08	HQP016801	NM_022162	NOD2
QG061-02	D09	HQP016744	NM_000450	SELE
QG061-02	D10	HQP016526	NM_002957	RXRA
QG061-02	D11	HQP016155	NM_002894	RBBP8
QG061-02	D12	HQP016125	NM_002890	RASA1
QG061-02	E01	HQP015563	NM_000958	PTGER4
QG061-02	E02	HQP015544	NM_000956	PTGER2
QG061-02	E03	HQP015530	NM_000264	PTCH1
QG061-02	E04	HQP014650	NM_002734	PRKAR1A
QG061-02	E05	HQP014243	NM_018272	CASC1
QG061-02	E06	HQP014222	NM_018248	NEIL3
QG061-02	E07	HQP013734	NM_017672	TRPM7
QG061-02	E08	HQP013616	NM_019093	UGT1A3
QG061-02	E09	HQP013614	NM_007120	UGT1A4
QG061-02	E10	HQP013596	NM_001184	ATR
QG061-02	E11	HQP013583	NM_205862	UGT1A6
QG061-02	E12	HQP013579	NM_019075	UGT1A10
QG061-02	F01	HQP013388	NM_017442	TLR9
QG061-02	F02	HQP013312	NM_000534	PMS1
QG061-02	F03	HQP012979	NM_002613	PDPK1
QG061-02	F04	HQP012501	NM_016341	PLCE1
QG061-02	F05	HQP011810	NM_020529	NFKBIA
QG061-02	F06	HQP011807	NM_003998	NFKB1
QG061-02	F07	HQP011800	NM_006164	NFE2L2
QG061-02	F08	HQP011687	NM_002485	NBN
QG061-02	F09	HQP011555	NM_002454	MTRR
QG061-02	F10	HQP011325	NM_019899	ABCC1
QG061-02	F11	HQP011320	NM_005590	MRE11A
QG061-02	F12	HQP011309	NM_000250	MPO
QG061-02	G01	HQP011266	NM_002426	MMP12
QG061-02	G02	HQP011257	NM_002422	MMP3
QG061-02	G03	HQP011256	NM_004530	MMP2
QG061-02	G04	HQP011255	NM_002421	MMP1
QG061-02	G05	HQP011171	NM_000244	MEN1
QG061-02	G06	HQP010868	NM_006152	LRMP
QG061-02	G07	HQP010613	NM_002312	LIG4
QG061-02	G08	HQP009788	NM_005544	IRS1
QG061-02	G09	HQP009718	NM_001562	IL18
QG061-02	G10	HQP009693	NM_002187	IL12B

Product Data Sheet

QG061-02	G11	HQP009692	NM_000882	IL12A
QG061-02	G12	HQP009640	NM_000575	IL1A
QG061-02	H01	HGDC		
QG061-02	H02	HGDC		
QG061-02	H03	HQP006940	NM_002046	GAPDH
QG061-02	H04	HQP016381	NM_001101	ACTB
QG061-02	H05	HQP015171	NM_004048	B2M
QG061-02	H06	HQP006171	NM_012423	RPL13A
QG061-02	H07	HQP009026	NM_000194	HPRT1
QG061-02	H08	HQP054253	NR_003286	RN18S1
QG061-02	H09	RT		
QG061-02	H10	RT		
QG061-02	H11	PCR		
QG061-02	H12	PCR		

### Limited Use License

Following terms and conditions apply to use of ExProfile™ Adenocarcinoma 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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GeneCopoeia warrants that the Product meets the specifications described in the accompanying Product Datasheet. If it is proven to the satisfaction of GeneCopoeia that the Product fails to meet these specifications, GeneCopoeia will replace the Product. In the event a replacement cannot be provided, GeneCopoeia will provide the purchaser with a refund. This limited warranty shall not extend to anyone other than the original purchaser of the Product. Notice of nonconforming products must be made to GeneCopoeia within 30 days of receipt of the Product. GeneCopoeia's liability is expressly limited to replacement of Product or a refund limited to the actual purchase price.

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