

ExProfile™ Human Kidney Cancer Gene qPCR Array

For focused group profiling of human kidney cancer related genes expression

Cat. No. QG069-A (1 x 96-well plate, Format A)

Cat. No. QG069-B (1 x 96-well plate, Format B)

Cat. No. QG069-C (1 x 96-well plate, Format C)

Cat. No. QG069-D (1 x 96-well plate, Format D)

Cat. No. QG069-E (1 x 96-well plate, Format E)

Available as 1 set or 6 sets. Each set contains 84 unique gene primers deposited in one 96-well plate.

Introduction

The ExProfile human kidney cancer gene qPCR array profiles 84 human genes to aberrantly expressed human genes involved in human kidney cancer. 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 kidney cancer gene array allows researchers to study the cancer-related genes to gain understanding of their roles of genes in kidney cancer pathogenesis.

- QG069 plate 01: 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

GeneCopeia 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
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	VHL	IL10	VEGFA	VDR	ABCB1	MMP1	XRCC1	XPC	TNF	MTHFR	HIF1A	ERCC2
B	XRCC3	WT1	TARBP2	SDHB	XPO5	GEMIN4	MMP3	IL4	EIF2C1	FH	CYP3A5	CTLA4
C	NAT2	ERCC5	TGFBR1	HLA-DRB1	CDH1	SCARB1	GSTO1	CCDC55	NEIL1	CASP8	FTO	CA9
D	TYMS	TP53	TGFB1	SVIL	BRCA2	SDHC	CCL5	CCL2	RXRA	RING1	RFC1	BCL2
E	CCND1	SEMA4G	C1orf183	C3orf10	FBXW7	PPARG	OPRM1	MYCN	MTR	MSH2	MLH1	MDM2
F	MCM6	SMAD7	KRAS	KDR	ITGB3	AR	FASLG	IL6	IL4R	IL1A	APOE	IGFBP3
G	HLA-A	GSTM3	NKIRAS1	GNAS	EIF2C2	DKK2	DKK3	DKK4	ALOX15	DAAM2	FGFR3	ESR1
H	HGDC	HGDC	GAPDH	ACTB	B2M	RPL13A	HPRT1	RN18S1	RT	RT	PCR	PCR

Figure1. Illustration of QG069 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 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
QG069-01	A01	HQP018485	NM_000551	VHL
QG069-01	A02	HQP009685	NM_000572	IL10
QG069-01	A03	HQP018475	NM_001025366	VEGFA
QG069-01	A04	HQP018474	NM_000376	VDR
QG069-01	A05	HQP013100	NM_000927	ABCB1
QG069-01	A06	HQP011255	NM_002421	MMP1
QG069-01	A07	HQP018562	NM_006297	XRCC1
QG069-01	A08	HQP018556	NM_004628	XPC
QG069-01	A09	HQP018141	NM_000594	TNF
QG069-01	A10	HQP011547	NM_005957	MTHFR
QG069-01	A11	HQP008832	NM_181054	HIF1A
QG069-01	A12	HQP004976	NM_000400	ERCC2
QG069-01	B01	HQP018564	NM_005432	XRCC3
QG069-01	B02	HQP018546	NM_000378	WT1
QG069-01	B03	HQP017906	NM_004178	TARBP2
QG069-01	B04	HQP016689	NM_003000	SDHB
QG069-01	B05	HQP015667	NM_020750	XPO5
QG069-01	B06	HQP012169	NM_015721	GEMIN4
QG069-01	B07	HQP011257	NM_002422	MMP3
QG069-01	B08	HQP009662	NM_000589	IL4
QG069-01	B09	HQP007287	NM_012199	EIF2C1
QG069-01	B10	HQP005446	NM_000143	FH
QG069-01	B11	HQP003841	NM_000777	CYP3A5
QG069-01	B12	HQP003499	NM_001037631	CTLA4
QG069-01	C01	HQP001136	NM_000015	NAT2
QG069-01	C02	HQP004985	NM_000123	ERCC5
QG069-01	C03	HQP054057	BC071181	TGFBR1
QG069-01	C04	HQP054047	BC008403	HLA-DRB1
QG069-01	C05	HQP023466	NM_004360	CDH1
QG069-01	C06	HQP022833	NM_005505	SCARB1
QG069-01	C07	HQP022764	NM_004832	GSTO1
QG069-01	C08	HQP020472	NM_032141	CCDC55
QG069-01	C09	HQP019141	NM_024608	NEIL1
QG069-01	C10	HQP018966	NM_001080124	CASP8
QG069-01	C11	HQP018895	NM_001080432	FTO
QG069-01	C12	HQP018668	NM_001216	CA9
QG069-01	D01	HQP018342	NM_001071	TYMS
QG069-01	D02	HQP018175	NM_000546	TP53
QG069-01	D03	HQP018044	NM_000660	TGFB1
QG069-01	D04	HQP017835	NM_003174	SVIL
QG069-01	D05	HQP017753	NM_000059	BRCA2
QG069-01	D06	HQP016694	NM_001035511	SDHC
QG069-01	D07	HQP016626	NM_002985	CCL5

Product Data Sheet

QG069-01	D08	HQP016621	NM_002982	CCL2
QG069-01	D09	HQP016526	NM_002957	RXRA
QG069-01	D10	HQP016281	NM_002931	RING1
QG069-01	D11	HQP016224	NM_002913	RFC1
QG069-01	D12	HQP016212	NM_000657	BCL2
QG069-01	E01	HQP016204	NM_053056	CCND1
QG069-01	E02	HQP015832	NM_017893	SEMA4G
QG069-01	E03	HQP014841	NM_019099	C1orf183
QG069-01	E04	HQP014766	NM_018462	C3orf10
QG069-01	E05	HQP014292	NM_018315	FBXW7
QG069-01	E06	HQP013633	NM_005037	PPARG
QG069-01	E07	HQP012062	NM_001008505	OPRM1
QG069-01	E08	HQP011602	NM_005378	MYCN
QG069-01	E09	HQP011554	NM_000254	MTR
QG069-01	E10	HQP011491	NM_000251	MSH2
QG069-01	E11	HQP011235	NM_000249	MLH1
QG069-01	E12	HQP011135	NM_002392	MDM2
QG069-01	F01	HQP011110	NM_005915	MCM6
QG069-01	F02	HQP010966	NM_005904	SMAD7
QG069-01	F03	HQP010133	NM_004985	KRAS
QG069-01	F04	HQP010070	NM_002253	KDR
QG069-01	F05	HQP009818	NM_000212	ITGB3
QG069-01	F06	HQP009801	NM_000044	AR
QG069-01	F07	HQP009671	NM_000639	FASLG
QG069-01	F08	HQP009670	NM_000600	IL6
QG069-01	F09	HQP009664	NM_000418	IL4R
QG069-01	F10	HQP009640	NM_000575	IL1A
QG069-01	F11	HQP009556	NM_000041	APOE
QG069-01	F12	HQP009544	NM_000598	IGFBP3
QG069-01	G01	HQP008849	NM_002116	HLA-A
QG069-01	G02	HQP008483	NM_000849	GSTM3
QG069-01	G03	HQP008107	NM_020345	NKIRAS1
QG069-01	G04	HQP007755	NM_000516	GNAS
QG069-01	G05	HQP007558	NM_012154	EIF2C2
QG069-01	G06	HQP007527	NM_014421	DKK2
QG069-01	G07	HQP007526	NM_001018057	DKK3
QG069-01	G08	HQP007525	NM_014420	DKK4
QG069-01	G09	HQP006425	NM_001140	ALOX15
QG069-01	G10	HQP006152	NM_015345	DAAM2
QG069-01	G11	HQP005434	NM_000142	FGFR3
QG069-01	G12	HQP004998	NM_000125	ESR1
QG069-01	H01	HGDC		
QG069-01	H02	HGDC		
QG069-01	H03	HQP006940	NM_002046	GAPDH
QG069-01	H04	HQP016381	NM_001101	ACTB
QG069-01	H05	HQP015171	NM_004048	B2M
QG069-01	H06	HQP006171	NM_012423	RPL13A

Product Data Sheet

QG069-01	H07	HQP009026	NM_000194	HPRT1
QG069-01	H08	HQP054253	NR_003286	RN18S1
QG069-01	H09	RT		
QG069-01	H10	RT		
QG069-01	H11	PCR		
QG069-01	H12	PCR		

Limited Use License

Following terms and conditions apply to use of ExProfile™ Kidney Cancer 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.

Limited Warranty

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.

GeneCopoeia's liability does not extend to any damages arising from use or improper use of the Product, or losses associated with the use of additional materials or reagents. This limited warranty is the sole and exclusive warranty. GeneCopoeia does not provide any other warranties of any kind, expressed or implied, including the merchantability or fitness of the Product for a particular purpose.

GeneCopoeia is committed to providing our customers with high-quality products. If you should have any questions or concerns about any GeneCopoeia products, please contact us at 301-762-0888.

© 2016 GeneCopoeia, Inc.

GeneCopoeia, Inc.
9620 Medical Center Drive, Suite 101
Rockville, MD 20850
+1 (301) 762-0888
+1 (866) 360-9531
inquiry@genecopoeia.com