

ExProfile™ Human Pancreatic Cancer Gene qPCR Array

For focused group profiling of human pancreatic cancer related genes expression

Cat. No. QG076-A (2 x 96-well plate, Format A)

Cat. No. QG076-B (2 x 96-well plate, Format B)

Cat. No. QG076-C (2 x 96-well plate, Format C)

Cat. No. QG076-D (2 x 96-well plate, Format D)

Cat. No. QG076-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 pancreatic cancer gene qPCR array profiles 168 human genes to aberrantly expressed human genes involved in human pancreatic 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 pancreatic cancer gene array allows researchers to study the cancer-related genes to gain understanding of their roles in pancreatic cancer pathogenesis.

- QG076 plate 01: 84 unique gene PCR primer pairs
- QG076 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
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	KRAS	BRCA2	CDKN2A	TP53	MTHFR	XRCC1	SPINK1	EGFR	NAT1	PRSS1	NAT2	OGG1
B	TNF	MEN1	CYP1A1	RAD54L	XRCC3	XPC	SOD2	ATR	MSH2	MLH1	SMAD4	IL6
C	APC	MSH6	ABO	ERCC2	CHEK2	RRM1	SLC29A1	CDH1	CDA	SLC28A1	XRCC2	TYMS
D	STK11	BRAF	PTGS2	PRSS2	POLB	PIK3CA	MTRR	MRE11A	MDM2	IL1B	IGF2	IGF1
E	APEX1	PALLD	FANCC	DCTD	DCK	CYP1B1	CHEK1	TP73	INDOL1	FGFR2	RET	EXO1
F	GGT1	MDC1	SLC28A2	ABCC3	RUNX1	OGT	IRS4	CLPTM1L	SHFM1	MCPH1	CASP8	WT1
G	VHL	USP1	TSHR	TP53BP1	TGFB1	TFF2	TCF1	KLF5	SULT1A1	SMO	SMARCB1	MMS19L
H	HGDC	HGDC	GAPDH	ACTB	B2M	RPL13A	HPRT1	RN18S1	RT	RT	PCR	PCR

Figure1. Illustration of QG076 plate 01

	1	2	3	4	5	6	7	8	9	10	11	12
A	MAP2K4	SLC28A3	SELE	BICD1	CCL5	RNASEL	RBBP8	RB1	PTEN	PTCH1	FBXW7	PPARG
B	UGT1A7	PMS1	PIK3R1	ABCB1	NIN	NTRK3	NRAS	NFKB1	NF2	NF1	NBN	MTR
C	MSH3	ABCC1	MPO	MPL	MET	SMAD3	SMAD2	LIG4	LIG3	KIT	JAK2	IRS1
D	FASLG	IL4R	IL4	IGFBP5	IGFBP3	IGFBP1	IGF1R	IDH1	BIRC5	HRAS	HLA-A	GSTA4
E	GPI	GNAS	GFPT1	GCK	RAD54B	NR5A2	FLT3	FGFR3	FANCF	ALDH2	FANCD2	FANCA
F	ERCC4	EPHA3	EGF	DPYD	DPP6	CYP17A1	CYP2E1	CYP2A13	CTNNB1	CSF1R	ADH1C	ADH1B
G	CCR5	KLF12	TREX1	PTPRT	TOPBP1	ARPC1A	CEBPA	CDK4	RAD50	ABCC5	UGT1A9	GUCY2F
H	HGDC	HGDC	GAPDH	ACTB	B2M	RPL13A	HPRT1	RN18S1	RT	RT	PCR	PCR

Figure2. Illustration of QG076 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.

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- **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
QG076-01	A01	HQP010133	NM_004985	KRAS
QG076-01	A02	HQP017753	NM_000059	BRCA2
QG076-01	A03	HQP000370	NM_058195	CDKN2A
QG076-01	A04	HQP018175	NM_000546	TP53
QG076-01	A05	HQP011547	NM_005957	MTHFR
QG076-01	A06	HQP018562	NM_006297	XRCC1
QG076-01	A07	HQP017666	NM_003122	SPINK1
QG076-01	A08	HQP004605	NM_005228	EGFR
QG076-01	A09	HQP023467	NM_000662	NAT1
QG076-01	A10	HQP015083	NM_002769	PRSS1
QG076-01	A11	HQP001136	NM_000015	NAT2
QG076-01	A12	HQP012021	NM_002542	OGG1
QG076-01	B01	HQP018141	NM_000594	TNF
QG076-01	B02	HQP011171	NM_000244	MEN1
QG076-01	B03	HQP003772	NM_000499	CYP1A1
QG076-01	B04	HQP020707	NM_003579	RAD54L
QG076-01	B05	HQP018564	NM_005432	XRCC3
QG076-01	B06	HQP018556	NM_004628	XPC
QG076-01	B07	HQP017616	NM_000636	SOD2
QG076-01	B08	HQP013596	NM_001184	ATR
QG076-01	B09	HQP011491	NM_000251	MSH2
QG076-01	B10	HQP011235	NM_000249	MLH1
QG076-01	B11	HQP010961	NM_005359	SMAD4
QG076-01	B12	HQP009670	NM_000600	IL6
QG076-01	C01	HQP009024	NM_000038	APC
QG076-01	C02	HQP008493	NM_000179	MSH6
QG076-01	C03	HQP008362	NM_020469	ABO
QG076-01	C04	HQP004976	NM_000400	ERCC2
QG076-01	C05	HQP001396	NM_001005735	CHEK2
QG076-01	C06	HQP054684	NM_001033	RRM1
QG076-01	C07	HQP053999	NM_004955	SLC29A1
QG076-01	C08	HQP023466	NM_004360	CDH1
QG076-01	C09	HQP023203	NM_001785	CDA
QG076-01	C10	HQP022202	NM_004213	SLC28A1
QG076-01	C11	HQP018563	NM_005431	XRCC2
QG076-01	C12	HQP018342	NM_001071	TYMS
QG076-01	D01	HQP017794	NM_000455	STK11

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QG076-01	D02	HQP017733	NM_004333	BRAF
QG076-01	D03	HQP015598	NM_000963	PTGS2
QG076-01	D04	HQP015084	NM_002770	PRSS2
QG076-01	D05	HQP013422	NM_002690	POLB
QG076-01	D06	HQP013150	NM_006218	PIK3CA
QG076-01	D07	HQP011555	NM_002454	MTRR
QG076-01	D08	HQP011320	NM_005590	MRE11A
QG076-01	D09	HQP011135	NM_002392	MDM2
QG076-01	D10	HQP009641	NM_000576	IL1B
QG076-01	D11	HQP009529	NM_000612	IGF2
QG076-01	D12	HQP009518	NM_000618	IGF1
QG076-01	E01	HQP009061	NM_001641	APEX1
QG076-01	E02	HQP005676	NM_016081	PALLD
QG076-01	E03	HQP005083	NM_000136	FANCC
QG076-01	E04	HQP004078	NM_001012732	DCTD
QG076-01	E05	HQP004066	NM_000788	DCK
QG076-01	E06	HQP003775	NM_000104	CYP1B1
QG076-01	E07	HQP001282	NM_001274	CHEK1
QG076-01	E08	HQP018180	NM_005427	TP73
QG076-01	E09	HQP054689	NM_194294	INDOL1
QG076-01	E10	HQP054054	BC039243	FGFR2
QG076-01	E11	HQP054045	BC004257	RET
QG076-01	E12	HQP054030	NM_130398	EXO1
QG076-01	F01	HQP054003	NM_005265	GGT1
QG076-01	F02	HQP023038	NM_014641	MDC1
QG076-01	F03	HQP022197	NM_004212	SLC28A2
QG076-01	F04	HQP021459	NM_003786	ABCC3
QG076-01	F05	HQP021347	NM_001754	RUNX1
QG076-01	F06	HQP020924	NM_181672	OGT
QG076-01	F07	HQP020912	NM_003604	IRS4
QG076-01	F08	HQP019829	NM_030782	CLPTM1L
QG076-01	F09	HQP019268	NM_006304	SHFM1
QG076-01	F10	HQP019129	NM_024596	MCPH1
QG076-01	F11	HQP018966	NM_001080124	CASP8
QG076-01	F12	HQP018546	NM_000378	WT1
QG076-01	G01	HQP018485	NM_000551	VHL
QG076-01	G02	HQP018447	NM_001017415	USP1
QG076-01	G03	HQP018271	NM_000369	TSHR
QG076-01	G04	HQP018176	NM_005657	TP53BP1
QG076-01	G05	HQP018044	NM_000660	TGFB1
QG076-01	G06	HQP018036	NM_005423	TFF2
QG076-01	G07	HQP017954	NM_000545	TCF1
QG076-01	G08	HQP017898	NM_001730	KLF5
QG076-01	G09	HQP017811	NM_177536	SULT1A1
QG076-01	G10	HQP017563	NM_005631	SMO
QG076-01	G11	HQP017526	NM_003073	SMARCB1
QG076-01	G12	HQP016847	NM_022362	MMS19L

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QG076-01	H01	HGDC		
QG076-01	H02	HGDC		
QG076-01	H03	HQP006940	NM_002046	GAPDH
QG076-01	H04	HQP016381	NM_001101	ACTB
QG076-01	H05	HQP015171	NM_004048	B2M
QG076-01	H06	HQP006171	NM_012423	RPL13A
QG076-01	H07	HQP009026	NM_000194	HPRT1
QG076-01	H08	HQP054253	NR_003286	RN18S1
QG076-01	H09	RT		
QG076-01	H10	RT		
QG076-01	H11	PCR		
QG076-01	H12	PCR		
QG076-02	A01	HQP016830	NM_003010	MAP2K4
QG076-02	A02	HQP016763	NM_022127	SLC28A3
QG076-02	A03	HQP016744	NM_000450	SELE
QG076-02	A04	HQP016645	NM_001003398	BICD1
QG076-02	A05	HQP016626	NM_002985	CCL5
QG076-02	A06	HQP016303	NM_021133	RNASEL
QG076-02	A07	HQP016155	NM_002894	RBBP8
QG076-02	A08	HQP016131	NM_000321	RB1
QG076-02	A09	HQP015535	NM_000314	PTEN
QG076-02	A10	HQP015530	NM_000264	PTCH1
QG076-02	A11	HQP014292	NM_018315	FBXW7
QG076-02	A12	HQP013633	NM_005037	PPARG
QG076-02	B01	HQP013581	NM_019077	UGT1A7
QG076-02	B02	HQP013312	NM_000534	PMS1
QG076-02	B03	HQP013155	NM_181504	PIK3R1
QG076-02	B04	HQP013100	NM_000927	ABCB1
QG076-02	B05	HQP012504	NM_182944	NIN
QG076-02	B06	HQP011946	NM_001007156	NTRK3
QG076-02	B07	HQP011914	NM_002524	NRAS
QG076-02	B08	HQP011807	NM_003998	NFKB1
QG076-02	B09	HQP011778	NM_000268	NF2
QG076-02	B10	HQP011774	NM_000267	NF1
QG076-02	B11	HQP011687	NM_002485	NBN
QG076-02	B12	HQP011554	NM_000254	MTR
QG076-02	C01	HQP011492	NM_002439	MSH3
QG076-02	C02	HQP011325	NM_019899	ABCC1
QG076-02	C03	HQP011309	NM_000250	MPO
QG076-02	C04	HQP011308	NM_005373	MPL
QG076-02	C05	HQP011181	NM_000245	MET
QG076-02	C06	HQP010960	NM_005902	SMAD3
QG076-02	C07	HQP010959	NM_001003652	SMAD2
QG076-02	C08	HQP010613	NM_002312	LIG4
QG076-02	C09	HQP010612	NM_013975	LIG3
QG076-02	C10	HQP010099	NM_000222	KIT
QG076-02	C11	HQP009850	NM_004972	JAK2

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QG076-02	C12	HQP009788	NM_005544	IRS1
QG076-02	D01	HQP009671	NM_000639	FASLG
QG076-02	D02	HQP009664	NM_000418	IL4R
QG076-02	D03	HQP009662	NM_000589	IL4
QG076-02	D04	HQP009551	NM_000599	IGFBP5
QG076-02	D05	HQP009544	NM_000598	IGFBP3
QG076-02	D06	HQP009539	NM_000596	IGFBP1
QG076-02	D07	HQP009523	NM_000875	IGF1R
QG076-02	D08	HQP009351	NM_005896	IDH1
QG076-02	D09	HQP009101	NM_001168	BIRC5
QG076-02	D10	HQP009036	NM_005343	HRAS
QG076-02	D11	HQP008849	NM_002116	HLA-A
QG076-02	D12	HQP008479	NM_001512	GSTA4
QG076-02	E01	HQP007814	NM_000175	GPI
QG076-02	E02	HQP007755	NM_000516	GNAS
QG076-02	E03	HQP007366	NM_002056	GFPT1
QG076-02	E04	HQP007239	NM_000162	GCK
QG076-02	E05	HQP006715	NM_012415	RAD54B
QG076-02	E06	HQP006438	NM_205860	NR5A2
QG076-02	E07	HQP005890	NM_004119	FLT3
QG076-02	E08	HQP005434	NM_000142	FGFR3
QG076-02	E09	HQP005098	NM_022725	FANCF
QG076-02	E10	HQP005087	NM_000690	ALDH2
QG076-02	E11	HQP005084	NM_001018115	FANCD2
QG076-02	E12	HQP005081	NM_000135	FANCA
QG076-02	F01	HQP004984	NM_005236	ERCC4
QG076-02	F02	HQP004924	NM_005233	EPHA3
QG076-02	F03	HQP004599	NM_001963	EGF
QG076-02	F04	HQP004439	NM_000110	DPYD
QG076-02	F05	HQP004435	NM_001039350	DPP6
QG076-02	F06	HQP003888	NM_000102	CYP17A1
QG076-02	F07	HQP003817	NM_000773	CYP2E1
QG076-02	F08	HQP003804	NM_000766	CYP2A13
QG076-02	F09	HQP003539	NM_001904	CTNNB1
QG076-02	F10	HQP003158	NM_005211	CSF1R
QG076-02	F11	HQP002413	NM_000669	ADH1C
QG076-02	F12	HQP002331	NM_000668	ADH1B
QG076-02	G01	HQP002210	NM_000579	CCR5
QG076-02	G02	HQP001507	NM_007249	KLF12
QG076-02	G03	HQP001504	NM_032166	TREX1
QG076-02	G04	HQP001285	NM_007050	PTPRT
QG076-02	G05	HQP001228	NM_007027	TOPBP1
QG076-02	G06	HQP000659	NM_006409	ARPC1A
QG076-02	G07	HQP000615	NM_004364	CEBPA
QG076-02	G08	HQP000245	NM_000075	CDK4
QG076-02	G09	HQP000145	NM_005732	RAD50
QG076-02	G10	HQP000075	NM_005688	ABCC5

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QG076-02	G11	HQP013597	NM_021027	UGT1A9
QG076-02	G12	HQP008556	NM_001522	GUCY2F
QG076-02	H01	HGDC		
QG076-02	H02	HGDC		
QG076-02	H03	HQP006940	NM_002046	GAPDH
QG076-02	H04	HQP016381	NM_001101	ACTB
QG076-02	H05	HQP015171	NM_004048	B2M
QG076-02	H06	HQP006171	NM_012423	RPL13A
QG076-02	H07	HQP009026	NM_000194	HPRT1
QG076-02	H08	HQP054253	NR_003286	RN18S1
QG076-02	H09	RT		
QG076-02	H10	RT		
QG076-02	H11	PCR		
QG076-02	H12	PCR		

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Following terms and conditions apply to use of ExProfile™ Pancreatic 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.

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