

ExProfile™ Human Testicular Cancer Gene qPCR Array

For focused group profiling of human testicular cancer related genes expression

Cat. No. QG081-A (1 x 96-well plate, Format A)

Cat. No. QG081-B (1 x 96-well plate, Format B)

Cat. No. QG081-C (1 x 96-well plate, Format C)

Cat. No. QG081-D (1 x 96-well plate, Format D)

Cat. No. QG081-E (1 x 96-well plate, Format E)

Available as 1 set or 6 sets. Each set contains 68 unique gene primers deposited in one 96-well plate.

Introduction

The ExProfile human testicular cancer gene qPCR array profiles 68 human genes to aberrantly expressed human genes involved in human testicular 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 testicular cancer gene array allows researchers to study the cancer-related genes to gain understanding of their roles in testicular cancer pathogenesis.

- QG081 plate 01: 68 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	F5	F2	AR	JAK2	BRAF	MTHFR	TNF	IL10	HSD17B4	HSD17B1	CYP3A5	CYP1A1
B	TGFB1	KITLG	IGF1	CYP17A1	CYP1B1	HLA-DRB1	CDA	BCL10	CLPTM1L	XRCC1	VEGFA	SULT1A1
C	SULT1E1	BLMH	RELA	BAK1	ATF7IP	SERPINE1	MMP9	MMP3	MMP1	SMAD4	KRAS	ITGB3
D	INHBC	INHBB	IL12B	IL6R	IL6	IL4	IL2	IL1RN	IL1B	IGFBP3	IGF2	IGF1R
E	IFNGR2	HFE	GH1	PTPN22	FSHR	FOXL1	FCGR2A	ESR2	ESR1	ERCC2	ERCC1	DMRT1
F	DHFR	ACE	DCK	CYP19A1	COMT	RAI1	FOXL2	IGFALS				
G												
H	HGDC	HGDC	GAPDH	ACTB	B2M	RPL13A	HPRT1	RN18S1	RT	RT	PCR	PCR

Figure1. Illustration of QG081 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
QG081-01	A01	HQP005058	NM_000130	F5
QG081-01	A02	HQP005052	NM_000506	F2
QG081-01	A03	HQP009801	NM_000044	AR
QG081-01	A04	HQP009850	NM_004972	JAK2
QG081-01	A05	HQP017733	NM_004333	BRAF
QG081-01	A06	HQP011547	NM_005957	MTHFR
QG081-01	A07	HQP018141	NM_000594	TNF
QG081-01	A08	HQP009685	NM_000572	IL10
QG081-01	A09	HQP009067	NM_000414	HSD17B4
QG081-01	A10	HQP009064	NM_000413	HSD17B1
QG081-01	A11	HQP003841	NM_000777	CYP3A5
QG081-01	A12	HQP003772	NM_000499	CYP1A1
QG081-01	B01	HQP018044	NM_000660	TGFB1
QG081-01	B02	HQP011205	NM_003994	KITLG
QG081-01	B03	HQP009518	NM_000618	IGF1
QG081-01	B04	HQP003888	NM_000102	CYP17A1
QG081-01	B05	HQP003775	NM_000104	CYP1B1
QG081-01	B06	HQP054047	BC008403	HLA-DRB1
QG081-01	B07	HQP023203	NM_001785	CDA
QG081-01	B08	HQP021725	NM_003921	BCL10
QG081-01	B09	HQP019829	NM_030782	CLPTM1L
QG081-01	B10	HQP018562	NM_006297	XRCC1
QG081-01	B11	HQP018475	NM_001025366	VEGFA
QG081-01	B12	HQP017811	NM_177536	SULT1A1
QG081-01	C01	HQP017784	NM_005420	SULT1E1
QG081-01	C02	HQP016897	NM_000386	BLMH
QG081-01	C03	HQP016213	NM_021975	RELA
QG081-01	C04	HQP015917	NM_001188	BAK1
QG081-01	C05	HQP014637	NM_018179	ATF7IP
QG081-01	C06	HQP012154	NM_000602	SERPINE1
QG081-01	C07	HQP011263	NM_004994	MMP9
QG081-01	C08	HQP011257	NM_002422	MMP3
QG081-01	C09	HQP011255	NM_002421	MMP1
QG081-01	C10	HQP010961	NM_005359	SMAD4
QG081-01	C11	HQP010133	NM_004985	KRAS
QG081-01	C12	HQP009818	NM_000212	ITGB3
QG081-01	D01	HQP009745	NM_005538	INHBC
QG081-01	D02	HQP009744	NM_002193	INHBB
QG081-01	D03	HQP009693	NM_002187	IL12B
QG081-01	D04	HQP009672	NM_000565	IL6R
QG081-01	D05	HQP009670	NM_000600	IL6
QG081-01	D06	HQP009662	NM_000589	IL4
QG081-01	D07	HQP009649	NM_000586	IL2

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QG081-01	D08	HQP009645	NM_000577	IL1RN
QG081-01	D09	HQP009641	NM_000576	IL1B
QG081-01	D10	HQP009544	NM_000598	IGFBP3
QG081-01	D11	HQP009529	NM_000612	IGF2
QG081-01	D12	HQP009523	NM_000875	IGF1R
QG081-01	E01	HQP009472	NM_005534	IFNGR2
QG081-01	E02	HQP008757	NM_000410	HFE
QG081-01	E03	HQP007385	NM_000515	GH1
QG081-01	E04	HQP007113	NM_012411	PTPN22
QG081-01	E05	HQP006435	NM_000145	FSHR
QG081-01	E06	HQP005663	NM_005250	FOXL1
QG081-01	E07	HQP005280	NM_021642	FCGR2A
QG081-01	E08	HQP005002	NM_001437	ESR2
QG081-01	E09	HQP004998	NM_000125	ESR1
QG081-01	E10	HQP004976	NM_000400	ERCC2
QG081-01	E11	HQP004975	NM_202001	ERCC1
QG081-01	E12	HQP004383	NM_021951	DMRT1
QG081-01	F01	HQP004309	NM_000791	DHFR
QG081-01	F02	HQP004081	NM_000789	ACE
QG081-01	F03	HQP004066	NM_000788	DCK
QG081-01	F04	HQP003904	NM_000103	CYP19A1
QG081-01	F05	HQP002671	NM_000754	COMT
QG081-01	F06	HQP000878	NM_030665	RAI1
QG081-01	F07	HQP017665	NM_023067	FOXL2
QG081-01	F08	HQP009537	NM_004970	IGFALS
QG081-01	F09			
QG081-01	F10			
QG081-01	F11			
QG081-01	F12			
QG081-01	G01			
QG081-01	G02			
QG081-01	G03			
QG081-01	G04			
QG081-01	G05			
QG081-01	G06			
QG081-01	G07			
QG081-01	G08			
QG081-01	G09			
QG081-01	G10			
QG081-01	G11			
QG081-01	G12			
QG081-01	H01	HGDC		
QG081-01	H02	HGDC		
QG081-01	H03	HQP006940	NM_002046	GAPDH
QG081-01	H04	HQP016381	NM_001101	ACTB
QG081-01	H05	HQP015171	NM_004048	B2M
QG081-01	H06	HQP006171	NM_012423	RPL13A

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QG081-01	H07	HQP009026	NM_000194	HPRT1
QG081-01	H08	HQP054253	NR_003286	RN18S1
QG081-01	H09	RT		
QG081-01	H10	RT		
QG081-01	H11	PCR		
QG081-01	H12	PCR		

Limited Use License

Following terms and conditions apply to use of ExProfile™ Testicular 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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