

ExProfile™ Human Innate Immune Signaling Related Gene qPCR Array

For focused group profiling of human innate immune signaling related gene expression

Cat. No. QG030-A (1 x 96-well plate, Format A)

Cat. No. QG030-B (1 x 96-well plate, Format B)

Cat. No. QG030-C (1 x 96-well plate, Format C)

Cat. No. QG030-D (1 x 96-well plate, Format D)

Cat. No. QG030-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 innate immune signaling related gene qPCR array profiles the expression of 84 human genes related to innate immune signaling transduction. These genes are carefully chosen for their close pathway correlation based on a thorough literature search of peer-reviewed publications. This array allows researchers to study pathway-related genes to gain understanding of their roles in innate immune signaling transduction.

- QG030 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 °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 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	ADORA2A	ADORA3	AKT1	ATF3	AZI2	BCL10	BCL3	BTK	CARD9	CD44	CD83	CDKN2A
B	CISH	CSK	CYLD	DOK1	DOK2	ECSIT	EGFR	EIF2AK3	FADD	HSP90B1	HSPA1A	HSPD1
C	HSPE1	IL1R1	IL1RL1	INDO	IRAK1	IRAK2	IRAK3	IRAK4	IRF1	IRF2	IRF3	IRF5
D	IRF7	IRF8	KCNMA1	LCN2	LGP2	LITAF	MAL	MAP3K7	MUC1	MYD88	NCF1	NCOA2
E	NOX1	NOX4	PELI1	PELI2	PELI3	PIN1	PYCARD	RAC1	RAF1	RIPK2	RSAD2	SARM1
F	SIGIRR	SLC11A1	SMAD6	SOCS1	SOCS3	SPP1	STAT1	SYK	TANK	TBK1	TBKBP1	TICAM2
G	TIFA	TIRAP	TNFAIP3	TOLLIP	TRAF3	TRAF6	TRIM25	UBE2N	UBE2V1	UNC93B1	VISA	PRKCE
H	HGDC	HGDC	GAPDH	ACTB	B2M	RPL13A	HPRT1	RN18S1	RT	RT	PCR	PCR

Figure1. Illustration of QG030 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
QG030-01	A01	HQP002833	NM_000675	ADORA2A
QG030-01	A02	HQP003089	NM_000677	ADORA3
QG030-01	A03	HQP004991	NM_001014431	AKT1
QG030-01	A04	HQP011680	NM_001030287	ATF3
QG030-01	A05	HQP016926	NM_022461	AZI2
QG030-01	A06	HQP021725	NM_003921	BCL10
QG030-01	A07	HQP016287	NM_005178	BCL3
QG030-01	A08	HQP017988	NM_000061	BTK
QG030-01	A09	HQP016832	NM_052813	CARD9
QG030-01	A10	HQP022972	NM_000610	CD44
QG030-01	A11	HQP022500	NM_001040280	CD83
QG030-01	A12	HQP000369	NM_000077	CDKN2A
QG030-01	B01	HQP001800	NM_145071	CISH
QG030-01	B02	HQP003218	NM_004383	CSK
QG030-01	B03	HQP003761	NM_001042355	CYLD
QG030-01	B04	HQP004426	NM_001381	DOK1
QG030-01	B05	HQP021953	NM_003974	DOK2
QG030-01	B06	HQP012603	NM_016581	ECSIT
QG030-01	B07	HQP004605	NM_005228	EGFR
QG030-01	B08	HQP022771	NM_004836	EIF2AK3
QG030-01	B09	HQP021526	NM_003824	FADD
QG030-01	B10	HQP018231	NM_003299	HSP90B1
QG030-01	B11	HQP009077	NM_005345	HSPA1A
QG030-01	B12	HQP009098	NM_002156	HSPD1
QG030-01	C01	HQP009102	NM_002157	HSPE1
QG030-01	C02	HQP009642	NM_000877	IL1R1
QG030-01	C03	HQP022241	NM_003856	IL1RL1
QG030-01	C04	HQP009736	NM_002164	INDO
QG030-01	C05	HQP009771	NM_001025242	IRAK1
QG030-01	C06	HQP009776	NM_001570	IRAK2
QG030-01	C07	HQP001408	NM_007199	IRAK3
QG030-01	C08	HQP012441	NM_016123	IRAK4
QG030-01	C09	HQP009778	NM_002198	IRF1
QG030-01	C10	HQP009779	NM_002199	IRF2
QG030-01	C11	HQP009780	NM_001571	IRF3
QG030-01	C12	HQP009782	NM_002200	IRF5
QG030-01	D01	HQP009785	NM_001572	IRF7
QG030-01	D02	HQP009251	NM_002163	IRF8
QG030-01	D03	HQP010033	NM_001014797	KCNMA1
QG030-01	D04	HQP010567	NM_005564	LCN2
QG030-01	D05	HQP018936	NM_024119	LGP2

Product Data Sheet

QG030-01	D06	HQP022851	NM_004862	LITAF
QG030-01	D07	HQP010995	NM_002371	MAL
QG030-01	D08	HQP017891	NM_003188	MAP3K7
QG030-01	D09	HQP011559	NM_001018016	MUC1
QG030-01	D10	HQP011603	NM_002468	MYD88
QG030-01	D11	HQP017417	NM_000265	NCF1
QG030-01	D12	HQP000603	NM_006540	NCOA2
QG030-01	E01	HQP007453	NM_007052	NOX1
QG030-01	E02	HQP012143	NM_016931	NOX4
QG030-01	E03	HQP015459	NM_020651	PELI1
QG030-01	E04	HQP015458	NM_021255	PELI2
QG030-01	E05	HQP006417	NM_145065	PELI3
QG030-01	E06	HQP013168	NM_006221	PIN1
QG030-01	E07	HQP008424	NM_013258	PYCARD
QG030-01	E08	HQP016063	NM_006908	RAC1
QG030-01	E09	HQP016088	NM_002880	RAF1
QG030-01	E10	HQP021524	NM_003821	RIPK2
QG030-01	E11	HQP022198	NM_080657	RSAD2
QG030-01	E12	HQP005757	NM_015077	SARM1
QG030-01	F01	HQP016150	NM_021805	SIGIRR
QG030-01	F02	HQP017463	NM_000578	SLC11A1
QG030-01	F03	HQP010965	NM_005585	SMAD6
QG030-01	F04	HQP021399	NM_003745	SOCS1
QG030-01	F05	HQP021889	NM_003955	SOCS3
QG030-01	F06	HQP017673	NM_000582	SPP1
QG030-01	F07	HQP017764	NM_007315	STAT1
QG030-01	F08	HQP017845	NM_003177	SYK
QG030-01	F09	HQP000019	NM_004180	TANK
QG030-01	F10	HQP008428	NM_013254	TBK1
QG030-01	F11	HQP023164	NM_014726	TBKBP1
QG030-01	F12	HQP009617	NM_021649	TICAM2
QG030-01	G01	HQP022424	NM_052864	TIFA
QG030-01	G02	HQP001674	NM_001039661	TIRAP
QG030-01	G03	HQP018145	NM_006290	TNFAIP3
QG030-01	G04	HQP013496	NM_019009	TOLLIP
QG030-01	G05	HQP018234	NM_003300	TRAF3
QG030-01	G06	HQP018237	NM_004620	TRAF6
QG030-01	G07	HQP018684	NM_005082	TRIM25
QG030-01	G08	HQP018383	NM_003348	UBE2N
QG030-01	G09	HQP018384	NM_001032288	UBE2V1
QG030-01	G10	HQP019940	NM_030930	UNC93B1
QG030-01	G11	HQP015659	NM_020746	VISA
QG030-01	G12	HQP014742	NM_005400	PRKCE
QG030-01	H01	HGDC		
QG030-01	H02	HGDC		
QG030-01	H03	HQP006940	NM_002046	GAPDH
QG030-01	H04	HQP016381	NM_001101	ACTB

Product Data Sheet

QG030-01	H05	HQP015171	NM_004048	B2M
QG030-01	H06	HQP006171	NM_012423	RPL13A
QG030-01	H07	HQP009026	NM_000194	HPRT1
QG030-01	H08	HQP054253	NR_003286	RN18S1
QG030-01	H09	RT		
QG030-01	H10	RT		
QG030-01	H11	PCR		
QG030-01	H12	PCR		

Limited Use License

Following terms and conditions apply to use of ExProfile™ Human Innate Immune Signaling 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.

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

GeneCopoeia Products are for Research Use Only

Trademarks: GeneCopoeia™, ExProfile™, All-in-One™, (GeneCopoeia Inc.); RNAzol® RT (Molecular Research Center, Inc.); SYBR® (Molecular Probes); iCycler iQ®, MyiQ™, iQ™5, CFX96™, DNA Engine Opticon™, DNA Engine Opticon 2™, Chromo4™ (Bio-Rad); LightCycler® (Roche); Trizol™, ABI®, ROX®, ViiA™, StepOnePlus™ (Life Technologies).
Copyright © 2016 GeneCopoeia, Inc.
QG030-160202