ExProfile™ Human Innate & Adaptive Immune Response Related Gene qPCR Array

For focused group profiling of human innate & adaptive immune response related gene expression

Cat. No. QG027-A (1 x 96-well plate, Format A)
Cat. No. QG027-B (1 x 96-well plate, Format B)
Cat. No. QG027-C (1 x 96-well plate, Format C)
Cat. No. QG027-D (1 x 96-well plate, Format D)
Cat. No. QG027-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 & adaptive immune response related gene qPCR array profiles the expression of 84 human genes related to the host response to bacterial infection and sepsis. 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 the innate and adaptive immune responses.

- QG027 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℃

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 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	C5	C8A	CAMP	CASP1	CASP4	CCL2	CD14	CD1D	CD55	CHUK	COLEC12
B	CRP	CXCR4	CYBB	DEFB4	DMBT1	FN1	HMOX1	IFNA1	IFNB1	IFNGR1	IFNGR2	IKBKB
C	IL10	IL12RB2	IL1A	IL1B	IL1F5	IL1F6	IL1F8	IL1F9	IL1R1	IL1R2	IL1RAP	IL1RAPL2
D	IL1RL2	IL1RN	IL6	IRAK1	IRAK2	IRF1	LALBA	LBP	LTF	LY96	LYZ	MAPK14
E	MAPK8	MIF	MYD88	NCF4	NFKB1	NFKB2	NFKBIA	NLRC4	NOS2A	PGLYRP2	PPBP	PROC
F	PTAFR	S100A12	SERPINA1	SERPINE1	SFTPD	TGFB1	TLR1	TLR10	TLR2	TLR3	TLR4	TLR6
G	TLR8	TLR9	TNF	TNFRSF1A	TOLLIP	TRAF6	CASP1	HPRT1	FN1	IL1RAP	CCR3	PGLYRP3
H	**HGDC**	**HGDC**	**GAPDH**	**ACTB**	**B2M**	**RPL13A**	**HPRT1**	**RN18S1**	**RT**	**RT**	**PCR**	**PCR**

Figure1. Illustration of QG027 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
QG027-01	A01	HQP002833	NM_000675	ADORA2A
QG027-01	A02	HQP018304	NM_001735	C5
QG027-01	A03	HQP018362	NM_000562	C8A
QG027-01	A04	HQP020046	NM_004345	CAMP
QG027-01	A05	HQP020208	NM_033292	CASP1
QG027-01	A06	HQP020332	NM_001225	CASP4
QG027-01	A07	HQP016621	NM_002982	CCL2
QG027-01	A08	HQP022490	NM_000591	CD14
QG027-01	A09	HQP022129	NM_001766	CD1D
QG027-01	A10	HQP003948	NM_000574	CD55
QG027-01	A11	HQP001708	NM_001278	CHUK
QG027-01	A12	HQP019828	NM_130386	COLEC12
QG027-01	B01	HQP002994	NM_000567	CRP
QG027-01	B02	HQP018803	NM_003467	CXCR4
QG027-01	B03	HQP003741	NM_000397	CYBB
QG027-01	B04	HQP004193	NM_004942	DEFB4
QG027-01	B05	HQP004353	NM_004406	DMBT1
QG027-01	B06	HQP006022	NM_002026	FN1
QG027-01	B07	HQP008898	NM_002133	HMOX1
QG027-01	B08	HQP009419	NM_024013	IFNA1
QG027-01	B09	HQP009463	NM_002176	IFNB1
QG027-01	B10	HQP009469	NM_000416	IFNGR1
QG027-01	B11	HQP009472	NM_005534	IFNGR2
QG027-01	B12	HQP009639	NM_001556	IKBKB
QG027-01	C01	HQP009685	NM_000572	IL10
QG027-01	C02	HQP009696	NM_001559	IL12RB2
QG027-01	C03	HQP009640	NM_000575	IL1A
QG027-01	C04	HQP009641	NM_000576	IL1B
QG027-01	C05	HQP007289	NM_012275	IL1F5
QG027-01	C06	HQP007573	NM_014440	IL1F6
QG027-01	C07	HQP007567	NM_173178	IL1F8
QG027-01	C08	HQP015063	NM_019618	IL1F9
QG027-01	C09	HQP009642	NM_000877	IL1R1
QG027-01	C10	HQP018800	NM_004633	IL1R2
QG027-01	C11	HQP009643	NM_002182	IL1RAP
QG027-01	C12	HQP007197	NM_017416	IL1RAPL2
QG027-01	D01	HQP021569	NM_003854	IL1RL2
QG027-01	D02	HQP009645	NM_000577	IL1RN
QG027-01	D03	HQP009670	NM_000600	IL6
QG027-01	D04	HQP009773	NM_001569	IRAK1
QG027-01	D05	HQP009776	NM_001570	IRAK2

QG027-01	D06	HQP009778	NM_002198	IRF1
QG027-01	D07	HQP010489	NM_002289	LALBA
QG027-01	D08	HQP010560	NM_004139	LBP
QG027-01	D09	HQP010919	NM_002343	LTF
QG027-01	D10	HQP006296	NM_015364	LY96
QG027-01	D11	HQP010937	NM_000239	LYZ
QG027-01	D12	HQP003133	NM_001315	MAPK14
QG027-01	E01	HQP014886	NM_002750	MAPK8
QG027-01	E02	HQP011219	NM_002415	MIF
QG027-01	E03	HQP011603	NM_002468	MYD88
QG027-01	E04	HQP011694	NM_000631	NCF4
QG027-01	E05	HQP011807	NM_003998	NFKB1
QG027-01	E06	HQP053985	NM_002502	NFKB2
QG027-01	E07	HQP011810	NM_020529	NFKBIA
QG027-01	E08	HQP015999	NM_021209	NLRC4
QG027-01	E09	HQP011866	NM_000625	NOS2A
QG027-01	E10	HQP001682	NM_052890	PGLYRP2
QG027-01	E11	HQP013662	NM_002704	PPBP
QG027-01	E12	HQP015041	NM_000312	PROC
QG027-01	F01	HQP015524	NM_000952	PTAFR
QG027-01	F02	HQP016551	NM_005621	S100A12
QG027-01	F03	HQP013122	NM_000295	SERPINA1
QG027-01	F04	HQP012154	NM_000602	SERPINE1
QG027-01	F05	HQP016980	NM_003019	SFTPD
QG027-01	F06	HQP018044	NM_000660	TGFB1
QG027-01	F07	HQP018113	NM_003263	TLR1
QG027-01	F08	HQP054024	NM_030956	TLR10
QG027-01	F09	HQP018114	NM_003264	TLR2
QG027-01	F10	HQP018115	NM_003265	TLR3
QG027-01	F11	HQP018116	NM_138554	TLR4
QG027-01	F12	HQP000415	NM_006068	TLR6
QG027-01	G01	HQP012625	NM_138636	TLR8
QG027-01	G02	HQP013388	NM_017442	TLR9
QG027-01	G03	HQP018141	NM_000594	TNF
QG027-01	G04	HQP018148	NM_001065	TNFRSF1A
QG027-01	G05	HQP013496	NM_019009	TOLLIP
QG027-01	G06	HQP018237	NM_004620	TRAF6
QG027-01	G07	HQP020210	NM_033294	CASP1
QG027-01	G08	HQP009026	NM_000194	HPRT1
QG027-01	G09	HQP006023	NM_054034	FN1
QG027-01	G10	HQP009644	NM_134470	IL1RAP
QG027-01	G11	HQP002207	NM_001837	CCR3
QG027-01	G12	HQP001683	NM_052891	PGLYRP3
QG027-01	H01	HGDC		
QG027-01	H02	HGDC		
QG027-01	H03	HQP006940	NM_002046	GAPDH
QG027-01	H04	HQP016381	NM_001101	ACTB

QG027-01	H05	HQP015171	NM_004048	B2M
QG027-01	H06	HQP006171	NM_012423	RPL13A
QG027-01	H07	HQP009026	NM_000194	HPRT1
QG027-01	H08	HQP054253	NR_003286	RN18S1
QG027-01	H09	RT		
QG027-01	H10	RT		
QG027-01	H11	PCR		
QG027-01	H12	PCR		

Limited Use License

Following terms and conditions apply to use of ExProfile™ Human Innate & Adaptive Immune Response 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.

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