

ExProfile™ Human Cytokine Receptor Related Gene qPCR Array

For focused group profiling of human cytokine receptor-related gene expression

Cat. No. QG008-A (1 x 96-well plate, Format A)

Cat. No. QG008-B (1 x 96-well plate, Format B)

Cat. No. QG008-C (1 x 96-well plate, Format C)

Cat. No. QG008-D (1 x 96-well plate, Format D)

Cat. No. QG008-E (1 x 96-well plate, Format E)

Plates available individually or as a set of 6. Each plate contains 84 unique gene primer pairs deposited in one 96-well plate.

Introduction

The ExProfile human cytokine receptor related gene qPCR array profiles the expression of 84 human genes related to the function and mechanism of cytokine receptors. 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 function and mechanism of cytokine receptors.

- QG008 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	AGTRL1	FAS	TNFRSF17	BLR1	CD27	TNFRSF8	CD40	CHUK	CCR1	CCR5	CCR6	CCR7
B	CCR8	CMKLR1	CX3CR1	DIAPH2	EGFR	EPOR	DARC	CCR10	CXCR3	GPR31	IFNAR1	IFNAR2
C	IFNGR1	IFNGR2	IGF1R	IGF2R	IL1R1	IL1RAP	IL2RA	IL2RB	IL2RG	IL3RA	IL4R	IL5RA
D	IL6R	IL6ST	IL7R	IL8RA	IL8RB	IL9R	IL10RA	IL10RB	IL11RA	IL12RB1	IL12RB2	IL13RA1
E	IL13RA2	IL15RA	TNFRSF9	TNFRSF11B	PDGFRA	PDGFRL	PDGFRB	TLR2	TLR4	TNFRSF1A	TNFRSF1B	IL1R2
F	CXCR4	SOCS1	TNFRSF14	TNFRSF18	TNFRSF11A	TNFRSF10D	TNFRSF10C	TNFRSF10B	TNFRSF10A	IL18RAP	IL1RL2	SOCS2
G	SOCS3	CCRL2	IL1RL1	IL27RA	SOCS5	EBI3	CXCR6	CCR9	CCR3	LTB4R	FGFR1	TNFRSF4
H	HGDC	HGDC	GAPDH	ACTB	B2M	RPL13A	HPRT1	RN18S1	RT	RT	PCR	PCR

Figure1. Illustration of QG008 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
QG008-01	A01	HQP004535	NM_005161	AGTRL1
QG008-01	A02	HQP009651	NM_000043	FAS
QG008-01	A03	HQP016367	NM_001192	TNFRSF17
QG008-01	A04	HQP016959	NM_001716	BLR1
QG008-01	A05	HQP022667	NM_001242	CD27
QG008-01	A06	HQP022753	NM_001243	TNFRSF8
QG008-01	A07	HQP022955	NM_001250	CD40
QG008-01	A08	HQP001708	NM_001278	CHUK
QG008-01	A09	HQP002198	NM_001295	CCR1
QG008-01	A10	HQP002210	NM_000579	CCR5
QG008-01	A11	HQP002212	NM_004367	CCR6
QG008-01	A12	HQP002217	NM_001838	CCR7
QG008-01	B01	HQP002222	NM_005201	CCR8
QG008-01	B02	HQP002242	NM_004072	CMKLR1
QG008-01	B03	HQP003691	NM_001337	CX3CR1
QG008-01	B04	HQP004324	NM_006729	DIAPH2
QG008-01	B05	HQP004605	NM_005228	EGFR
QG008-01	B06	HQP004958	NM_000121	EPOR
QG008-01	B07	HQP006479	NM_002036	DARC
QG008-01	B08	HQP007833	NM_016602	CCR10
QG008-01	B09	HQP007900	NM_001504	CXCR3
QG008-01	B10	HQP008143	NM_005299	GPR31
QG008-01	B11	HQP009458	NM_000629	IFNAR1
QG008-01	B12	HQP009460	NM_000874	IFNAR2
QG008-01	C01	HQP009469	NM_000416	IFNGR1
QG008-01	C02	HQP009472	NM_005534	IFNGR2
QG008-01	C03	HQP009523	NM_000875	IGF1R
QG008-01	C04	HQP009532	NM_000876	IGF2R
QG008-01	C05	HQP009642	NM_000877	IL1R1
QG008-01	C06	HQP009643	NM_002182	IL1RAP
QG008-01	C07	HQP009650	NM_000417	IL2RA
QG008-01	C08	HQP009658	NM_000878	IL2RB
QG008-01	C09	HQP009659	NM_000206	IL2RG
QG008-01	C10	HQP009661	NM_002183	IL3RA
QG008-01	C11	HQP009664	NM_000418	IL4R
QG008-01	C12	HQP009667	NM_000564	IL5RA
QG008-01	D01	HQP009672	NM_000565	IL6R
QG008-01	D02	HQP009674	NM_002184	IL6ST
QG008-01	D03	HQP009677	NM_002185	IL7R
QG008-01	D04	HQP009679	NM_000634	IL8RA
QG008-01	D05	HQP009681	NM_001557	IL8RB

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QG008-01	D06	HQP009683	NM_002186	IL9R
QG008-01	D07	HQP009686	NM_001558	IL10RA
QG008-01	D08	HQP009687	NM_000628	IL10RB
QG008-01	D09	HQP009690	NM_004512	IL11RA
QG008-01	D10	HQP009694	NM_005535	IL12RB1
QG008-01	D11	HQP009696	NM_001559	IL12RB2
QG008-01	D12	HQP009700	NM_001560	IL13RA1
QG008-01	E01	HQP009702	NM_000640	IL13RA2
QG008-01	E02	HQP009710	NM_002189	IL15RA
QG008-01	E03	HQP009716	NM_001561	TNFRSF9
QG008-01	E04	HQP012049	NM_002546	TNFRSF11B
QG008-01	E05	HQP012866	NM_006206	PDGFRA
QG008-01	E06	HQP012871	NM_006207	PDGFRL
QG008-01	E07	HQP012889	NM_002609	PDGFRB
QG008-01	E08	HQP018114	NM_003264	TLR2
QG008-01	E09	HQP018116	NM_138554	TLR4
QG008-01	E10	HQP018148	NM_001065	TNFRSF1A
QG008-01	E11	HQP018149	NM_001066	TNFRSF1B
QG008-01	E12	HQP018800	NM_004633	IL1R2
QG008-01	F01	HQP018802	NM_001008540	CXCR4
QG008-01	F02	HQP021399	NM_003745	SOCS1
QG008-01	F03	HQP021522	NM_003820	TNFRSF14
QG008-01	F04	HQP021536	NM_004195	TNFRSF18
QG008-01	F05	HQP021550	NM_003839	TNFRSF11A
QG008-01	F06	HQP021551	NM_003840	TNFRSF10D
QG008-01	F07	HQP021552	NM_003841	TNFRSF10C
QG008-01	F08	HQP021553	NM_003842	TNFRSF10B
QG008-01	F09	HQP021557	NM_003844	TNFRSF10A
QG008-01	F10	HQP021568	NM_003853	IL18RAP
QG008-01	F11	HQP021569	NM_003854	IL1RL2
QG008-01	F12	HQP021602	NM_003877	SOCS2
QG008-01	G01	HQP021889	NM_003955	SOCS3
QG008-01	G02	HQP021922	NM_003965	CCRL2
QG008-01	G03	HQP022241	NM_003856	IL1RL1
QG008-01	G04	HQP022792	NM_004843	IL27RA
QG008-01	G05	HQP023037	NM_014011	SOCS5
QG008-01	G06	HQP000186	NM_005755	EBI3
QG008-01	G07	HQP000808	NM_006564	CXCR6
QG008-01	G08	HQP000939	NM_006641	CCR9
QG008-01	G09	HQP002207	NM_001837	CCR3
QG008-01	G10	HQP002245	NM_181657	LTB4R
QG008-01	G11	HQP005427	NM_015850	FGFR1
QG008-01	G12	HQP018332	NM_003327	TNFRSF4
QG008-01	H01	HGDC		
QG008-01	H02	HGDC		
QG008-01	H03	HQP006940	NM_002046	GAPDH
QG008-01	H04	HQP016381	NM_001101	ACTB

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QG008-01	H05	HQP015171	NM_004048	B2M
QG008-01	H06	HQP006171	NM_012423	RPL13A
QG008-01	H07	HQP009026	NM_000194	HPRT1
QG008-01	H08	HQP054253	NR_003286	RN18S1
QG008-01	H09	RT		
QG008-01	H10	RT		
QG008-01	H11	PCR		
QG008-01	H12	PCR		

Limited Use License

Following terms and conditions apply to use of ExProfile™ Human Cytokine Receptor 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.

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