

ExProfile™ Human Immune Complement Related Gene qPCR Array

For focused group profiling of human immune complement genes expression

Cat. No. QG033-A (1 x 96-well plate, Format A)

Cat. No. QG033-B (1 x 96-well plate, Format B)

Cat. No. QG033-C (1 x 96-well plate, Format C)

Cat. No. QG033-D (1 x 96-well plate, Format D)

Cat. No. QG033-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 immune complement related gene qPCR array profiles the expression of 84 human genes related to immune complement. These genes are carefully chosen for their close correlation based on a thorough literature search of peer-reviewed publications, mainly including genes that encode major components of the classical, alternative and lectin pathways, such as accessory molecules and multiple complement control proteins. This array allows researchers to study the related genes to gain understanding of their roles in the functioning and characterization of immune complement.

- QG033 plate 01: 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

GeneCopoela 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	TPO	THBS1	SPP1	SIRPA	SERPINE1	PROS1	PLG	PLAU	PLAT	NR1H4	MMP14	MBL2
B	MASP2	LRP1	KRT1	KLK1	ITGB3	ITGB2	ITGAX	ITGAV	ITGAM	IFNA7	HRG	GC
C	FCN1	CRP	CR2	CPN1	CLU	CFP	CFHR5	CFHR4	CFH	CFD	CFB	CD97
D	CD93	CD59	CD55	CD46	CD44	CD209	CAPRN2	C9	C8G	C8B	C8A	C7
E	C6	C5AR1	C5	C4BPB	C4BPA	C4A	C3AR1	C3	C2	C1S	C1RL	C1R
F	C1QL4	C1QL3	C1QL1	C1QC	C1QBP	C1QA	C13orf15	BGN	APCS	C1QL2	CSMD1	IBSP
G	MASP1	CFHR1	CFHR2	CFHR3	CFI	CPB2	CR1	PRF1	DCN	FAM132A	FMOD	GPR77
H	HGDC	HGDC	GAPDH	ACTB	B2M	RPL13A	HPRT1	RN18S1	RT	RT	PCR	PCR

Figure1. Illustration of QG033 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
QG033-01	A01	HQP018214	NM_000547	TPO
QG033-01	A02	HQP018068	NM_003246	THBS1
QG033-01	A03	HQP017673	NM_000582	SPP1
QG033-01	A04	HQP003078	NM_001040022	SIRPA
QG033-01	A05	HQP012154	NM_000602	SERPINE1
QG033-01	A06	HQP015059	NM_000313	PROS1
QG033-01	A07	HQP013257	NM_000301	PLG
QG033-01	A08	HQP013204	NM_002658	PLAU
QG033-01	A09	HQP013201	NM_000930	PLAT
QG033-01	A10	HQP023437	NM_005123	NR1H4
QG033-01	A11	HQP011268	NM_004995	MMP14
QG033-01	A12	HQP011077	NM_000242	MBL2
QG033-01	B01	HQP000882	NM_006610	MASP2
QG033-01	B02	HQP010870	NM_002332	LRP1
QG033-01	B03	HQP010136	NM_006121	KRT1
QG033-01	B04	HQP010100	NM_002257	KLK1
QG033-01	B05	HQP009818	NM_000212	ITGB3
QG033-01	B06	HQP009815	NM_000211	ITGB2
QG033-01	B07	HQP009809	NM_000887	ITGAX
QG033-01	B08	HQP009808	NM_002210	ITGAV
QG033-01	B09	HQP009807	NM_000632	ITGAM
QG033-01	B10	HQP009430	NM_021057	IFNA7
QG033-01	B11	HQP009048	NM_000412	HRG
QG033-01	B12	HQP007230	NM_000583	GC
QG033-01	C01	HQP005339	NM_002003	FCN1
QG033-01	C02	HQP002994	NM_000567	CRP
QG033-01	C03	HQP002889	NM_001006658	CR2
QG033-01	C04	HQP002857	NM_001308	CPN1
QG033-01	C05	HQP002037	NM_001831	CLU
QG033-01	C06	HQP013060	NM_002621	CFP
QG033-01	C07	HQP019873	NM_030787	CFHR5
QG033-01	C08	HQP001001	NM_006684	CFHR4
QG033-01	C09	HQP008755	NM_000186	CFH
QG033-01	C10	HQP004198	NM_001928	CFD
QG033-01	C11	HQP016565	NM_001710	CFB
QG033-01	C12	HQP023178	NM_001025160	CD97
QG033-01	D01	HQP005589	NM_012072	CD93
QG033-01	D02	HQP023056	NM_000611	CD59
QG033-01	D03	HQP003948	NM_000574	CD55
QG033-01	D04	HQP011113	NM_002389	CD46

QG033-01	D05	HQP022972	NM_000610	CD44
QG033-01	D06	HQP008808	NM_021155	CD209
QG033-01	D07	HQP017515	NM_001002259	CAPRIN2
QG033-01	D08	HQP018414	NM_001737	C9
QG033-01	D09	HQP018391	NM_000606	C8G
QG033-01	D10	HQP018380	NM_000066	C8B
QG033-01	D11	HQP018362	NM_000562	C8A
QG033-01	D12	HQP018353	NM_000587	C7
QG033-01	E01	HQP018344	NM_000065	C6
QG033-01	E02	HQP018326	NM_001736	C5AR1
QG033-01	E03	HQP018304	NM_001735	C5
QG033-01	E04	HQP018276	NM_000716	C4BPB
QG033-01	E05	HQP018259	NM_000715	C4BPA
QG033-01	E06	HQP018248	NM_007293	C4A
QG033-01	E07	HQP018239	NM_004054	C3AR1
QG033-01	E08	HQP018238	NM_000064	C3
QG033-01	E09	HQP018226	NM_000063	C2
QG033-01	E10	HQP018206	NM_001734	C1S
QG033-01	E11	HQP012584	NM_016546	C1RL
QG033-01	E12	HQP018179	NM_001733	C1R
QG033-01	F01	HQP009207	NM_001008223	C1QL4
QG033-01	F02	HQP010407	NM_001010908	C1QL3
QG033-01	F03	HQP001007	NM_006688	C1QL1
QG033-01	F04	HQP018170	NM_172369	C1QC
QG033-01	F05	HQP018106	NM_001212	C1QBP
QG033-01	F06	HQP018146	NM_015991	C1QA
QG033-01	F07	HQP008346	NM_014059	C13orf15
QG033-01	F08	HQP016610	NM_001711	BGN
QG033-01	F09	HQP009031	NM_001639	APCS
QG033-01	F10	HQP004137	NM_182528	C1QL2
QG033-01	F11	HQP017007	NM_033225	CSMD1
QG033-01	F12	HQP009173	NM_004967	IBSP
QG033-01	G01	HQP015091	NM_001031849	MASP1
QG033-01	G02	HQP008768	NM_002113	CFHR1
QG033-01	G03	HQP008770	NM_005666	CFHR2
QG033-01	G04	HQP001002	NM_021023	CFHR3
QG033-01	G05	HQP009376	NM_000204	CFI
QG033-01	G06	HQP002836	NM_001872	CPB2
QG033-01	G07	HQP002880	NM_000573	CR1
QG033-01	G08	HQP014437	NM_001083116	PRF1
QG033-01	G09	HQP004071	NM_001920	DCN
QG033-01	G10	HQP010280	NM_001014980	FAM132A
QG033-01	G11	HQP005991	NM_002023	FMOD
QG033-01	G12	HQP007592	NM_018485	GPR77
QG033-01	H01	HGDC		
QG033-01	H02	HGDC		

QG033-01	H03	HQP006940	NM_002046	GAPDH
QG033-01	H04	HQP016381	NM_001101	ACTB
QG033-01	H05	HQP015171	NM_004048	B2M
QG033-01	H06	HQP006171	NM_012423	RPL13A
QG033-01	H07	HQP009026	NM_000194	HPRT1
QG033-01	H08	HQP054253	NR_003286	RN18S1
QG033-01	H09	RT		
QG033-01	H10	RT		
QG033-01	H11	PCR		
QG033-01	H12	PCR		

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