

## ExProfile™ Human Dendritic & Antigen Presenting Cell Related Gene qPCR Array

For focused group profiling of human dendritic and antigen presenting cell genes expression

Cat. No. QG010-A (1 x 96-well plate, Format A)

Cat. No. QG010-B (1 x 96-well plate, Format B)

Cat. No. QG010-C (1 x 96-well plate, Format C)

Cat. No. QG010-D (1 x 96-well plate, Format D)

Cat. No. QG010-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 dendritic & antigen presenting cell related gene qPCR array profiles the expression of 84 human genes related to dendritic cell activation and maturation. These genes are carefully chosen for their close pathway correlation based on a thorough literature search of peer-reviewed publications, mainly including genes that encode various cytokines, chemokines, receptors and signal transduction molecules. This array allows researchers to study the related genes to gain understanding of their roles in the functioning and characterization of dendritic cell activation and maturation.

- QG010 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

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	TAPBP	FCAR	FAS	HPRT1	CD44	TRAP1	TNF	TLR2	TLR1	TAPBP	TAP2	STK4
B	RELB	RELA	RAC1	PDIA3	NFKB2	NFKB1	MIF	LYN	LRP1	ITGB2	ITGAM	INHBA
C	IL8RA	IL8	IL2	IL12B	IL12A	IFNGR1	IFNG	IFIT3	ICAM2	ICAM1	HLA-DQA1	HLA-DPA1
D	HLA-DOA	HLA-DMA	HLA-A	FCGR1A	FCER2	FCER1A	FAS	ERBB2	CXCR4	CXCL2	CXCL12	CXCL10
E	CXCL1	CSF1R	CEBPA	CDKN1A	CDC42	CD86	CD80	CD44	CD40LG	CD40	CD4	CD28
F	CD209	CD2	CD1D	CD1C	CD1B	CD1A	CCR5	CCR2	CCR1	CCL8	CCL7	CCL5
G	CCL4	CCL3L1	CCL3	CCL2	CCL19	CCL16	CCL13	CCL11	CCR3	CD74	FCAR	HLA-DQB1
H	HGDC	HGDC	GAPDH	ACTB	B2M	RPL13A	HPRT1	RN18S1	RT	RT	PCR	PCR

Figure1. Illustration of QG010 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
QG010-01	A01	HQP017903	NM_172208	TAPBP
QG010-01	A02	HQP005231	NM_133273	FCAR
QG010-01	A03	HQP009653	NM_152872	FAS
QG010-01	A04	HQP009026	NM_000194	HPRT1
QG010-01	A05	HQP022974	NM_001001390	CD44
QG010-01	A06	HQP000164	NM_016292	TRAP1
QG010-01	A07	HQP018141	NM_000594	TNF
QG010-01	A08	HQP018114	NM_003264	TLR2
QG010-01	A09	HQP018113	NM_003263	TLR1
QG010-01	A10	HQP017902	NM_003190	TAPBP
QG010-01	A11	HQP017900	NM_000544	TAP2
QG010-01	A12	HQP017789	NM_006282	STK4
QG010-01	B01	HQP016214	NM_006509	RELB
QG010-01	B02	HQP016213	NM_021975	RELA
QG010-01	B03	HQP016063	NM_006908	RAC1
QG010-01	B04	HQP008463	NM_005313	PDIA3
QG010-01	B05	HQP053985	NM_002502	NFKB2
QG010-01	B06	HQP011807	NM_003998	NFKB1
QG010-01	B07	HQP011219	NM_002415	MIF
QG010-01	B08	HQP010935	NM_002350	LYN
QG010-01	B09	HQP010870	NM_002332	LRP1
QG010-01	B10	HQP009815	NM_000211	ITGB2
QG010-01	B11	HQP009807	NM_000632	ITGAM
QG010-01	B12	HQP009743	NM_002192	INHBA
QG010-01	C01	HQP009679	NM_000634	IL8RA
QG010-01	C02	HQP009678	NM_000584	IL8
QG010-01	C03	HQP009649	NM_000586	IL2
QG010-01	C04	HQP009693	NM_002187	IL12B
QG010-01	C05	HQP009692	NM_000882	IL12A
QG010-01	C06	HQP009469	NM_000416	IFNGR1
QG010-01	C07	HQP009467	NM_000619	IFNG
QG010-01	C08	HQP009417	NM_001549	IFIT3
QG010-01	C09	HQP009187	NM_000873	ICAM2
QG010-01	C10	HQP009184	NM_000201	ICAM1
QG010-01	C11	HQP008861	NM_002122	HLA-DQA1
QG010-01	C12	HQP008859	NM_033554	HLA-DPA1

QG010-01	D01	HQP008857	NM_002119	HLA-DOA
QG010-01	D02	HQP008852	NM_006120	HLA-DMA
QG010-01	D03	HQP008849	NM_002116	HLA-A
QG010-01	D04	HQP005251	NM_000566	FCGR1A
QG010-01	D05	HQP005242	NM_002002	FCER2
QG010-01	D06	HQP005238	NM_002001	FCER1A
QG010-01	D07	HQP009651	NM_000043	FAS
QG010-01	D08	HQP004969	NM_004448	ERBB2
QG010-01	D09	HQP018803	NM_003467	CXCR4
QG010-01	D10	HQP008458	NM_002089	CXCL2
QG010-01	D11	HQP016669	NM_000609	CXCL12
QG010-01	D12	HQP009746	NM_001565	CXCL10
QG010-01	E01	HQP008456	NM_001511	CXCL1
QG010-01	E02	HQP003158	NM_005211	CSF1R
QG010-01	E03	HQP000615	NM_004364	CEBPA
QG010-01	E04	HQP000331	NM_000389	CDKN1A
QG010-01	E05	HQP053981	NM_001791	CDC42
QG010-01	E06	HQP022746	NM_006889	CD86
QG010-01	E07	HQP022722	NM_005191	CD80
QG010-01	E08	HQP022972	NM_000610	CD44
QG010-01	E09	HQP022962	NM_000074	CD40LG
QG010-01	E10	HQP022955	NM_001250	CD40
QG010-01	E11	HQP022316	NM_000616	CD4
QG010-01	E12	HQP022699	NM_006139	CD28
QG010-01	F01	HQP008808	NM_021155	CD209
QG010-01	F02	HQP022190	NM_001767	CD2
QG010-01	F03	HQP022129	NM_001766	CD1D
QG010-01	F04	HQP022111	NM_001765	CD1C
QG010-01	F05	HQP022090	NM_001764	CD1B
QG010-01	F06	HQP022070	NM_001763	CD1A
QG010-01	F07	HQP002210	NM_000579	CCR5
QG010-01	F08	HQP002201	NM_000648	CCR2
QG010-01	F09	HQP002198	NM_001295	CCR1
QG010-01	F10	HQP016628	NM_005623	CCL8
QG010-01	F11	HQP016627	NM_006273	CCL7
QG010-01	F12	HQP016626	NM_002985	CCL5
QG010-01	G01	HQP016625	NM_002984	CCL4
QG010-01	G02	HQP053971	NM_021006	CCL3L1
QG010-01	G03	HQP016622	NM_002983	CCL3
QG010-01	G04	HQP016621	NM_002982	CCL2
QG010-01	G05	HQP016638	NM_006274	CCL19

QG010-01	G06	HQP016635	NM_004590	CCL16
QG010-01	G07	HQP016630	NM_005408	CCL13
QG010-01	G08	HQP016629	NM_002986	CCL11
QG010-01	G09	HQP002207	NM_001837	CCR3
QG010-01	G10	HQP023129	NM_004355	CD74
QG010-01	G11	HQP005227	NM_002000	FCAR
QG010-01	G12	HQP008863	NM_002123	HLA-DQB1
QG010-01	H01	HGDC		
QG010-01	H02	HGDC		
QG010-01	H03	HQP006940	NM_002046	GAPDH
QG010-01	H04	HQP016381	NM_001101	ACTB
QG010-01	H05	HQP015171	NM_004048	B2M
QG010-01	H06	HQP006171	NM_012423	RPL13A
QG010-01	H07	HQP009026	NM_000194	HPRT1
QG010-01	H08	HQP054253	NR_003286	RN18S1
QG010-01	H09	RT		
QG010-01	H10	RT		
QG010-01	H11	PCR		
QG010-01	H12	PCR		

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### Limited Use License

Following terms and conditions apply to use of ExProfile™ Human Dendritic & Antigen Presenting Cell 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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