ExProfile™ Human FoxP3 Target Gene qPCR Array

For focused group profiling of human FoxP3 target gene expression

Cat. No. QG018-A (1 x 96-well plate, Format A)
Cat. No. QG018-B (1 x 96-well plate, Format B)
Cat. No. QG018-C (1 x 96-well plate, Format C)
Cat. No. QG018-D (1 x 96-well plate, Format D)
Cat. No. QG018-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 FoxP3 target gene related gene qPCR array profiles the expression of 84 human genes related to the development and function of T regulatory cells. 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 detect the expression of related genes that are either activated or repressed in T regulatory cells during their development and proliferation.

- QG018 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	BCL10	CCL1	CCND3	CCNG2	CCNI	CCR1	CCR4	CD2	CD274	CD28	CD3E	CD72
B	CDC27	CDC40	CDK4	CISH	CREB1	CREM	CRTAM	CSF1	CTLA4	CXCL10	CXCR6	DUSP6
C	EBI3	EGR2	ETS1	FGL2	FOXP3	GBP2	GPR35	GPR65	GZMB	HCST	HIF1A	ICOS
D	IL10	IL10RA	IL2	IL2RA	IRF4	IRF6	IRF8	ITGAL	ITGB7	ITK	JAK2	JUNB
E	LCP2	LY9	LY96	MAPRE2	MYC	NFAT5	NFATC2	NFATC3	NT5E	PDCD1	PDCD2	PDE3B
F	POU2AF1	PRDM1	PTGER1	PTGER4	PTPN22	PTPRC	PTPRJ	RAMP1	RBPJ	RGS1	S100A6	SEMA4A
G	STAT3	STAT4	STAT5A	STAT6	TGIF1	TNFRSF18	TNFRSF19	TNFRSF1B	TNFRSF9	TNFSF14	TNFSF4	CCR3
H	HGDC	HGDC	GAPDH	ACTB	B2M	RPL13A	HPRT1	RN18S1	RT	RT	PCR	PCR

Figure1. Illustration of QG018 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
QG018-01	A01	HQP021725	NM_003921	BCL10
QG018-01	A02	HQP016620	NM_002981	CCL1
QG018-01	A03	HQP021757	NM_001760	CCND3
QG018-01	A04	HQP021882	NM_004354	CCNG2
QG018-01	A05	HQP001120	NM_006835	CCNI
QG018-01	A06	HQP002198	NM_001295	CCR1
QG018-01	A07	HQP002209	NM_005508	CCR4
QG018-01	A08	HQP022190	NM_001767	CD2
QG018-01	A09	HQP008443	NM_014143	CD274
QG018-01	A10	HQP022699	NM_006139	CD28
QG018-01	A11	HQP022236	NM_000733	CD3E
QG018-01	A12	HQP023117	NM_001782	CD72
QG018-01	B01	HQP023421	NM_001256	CDC27
QG018-01	B02	HQP012675	NM_015891	CDC40
QG018-01	B03	HQP000245	NM_000075	CDK4
QG018-01	B04	HQP001800	NM_145071	CISH
QG018-01	B05	HQP002907	NM_004379	CREB1
QG018-01	B06	HQP002935	NM_001881	CREM
QG018-01	B07	HQP015042	NM_019604	CRTAM
QG018-01	B08	HQP003149	NM_000757	CSF1
QG018-01	B09	HQP003499	NM_001037631	CTLA4
QG018-01	B10	HQP009746	NM_001565	CXCL10
QG018-01	B11	HQP000808	NM_006564	CXCR6
QG018-01	B12	HQP004504	NM_001946	DUSP6
QG018-01	C01	HQP000186	NM_005755	EBI3
QG018-01	C02	HQP004613	NM_000399	EGR2
QG018-01	C03	HQP005014	NM_005238	ETS1
QG018-01	C04	HQP000999	NM_006682	FGL2
QG018-01	C05	HQP012269	NM_014009	FOXP3
QG018-01	C06	HQP007223	NM_004120	GBP2
QG018-01	C07	HQP008201	NM_005301	GPR35
QG018-01	C08	HQP020938	NM_003608	GPR65
QG018-01	C09	HQP008690	NM_004131	GZMB
QG018-01	C10	HQP000994	NM_001007469	HCST
QG018-01	C11	HQP008831	NM_001530	HIF1A
QG018-01	C12	HQP008554	NM_012092	ICOS
QG018-01	D01	HQP009685	NM_000572	IL10
QG018-01	D02	HQP009686	NM_001558	IL10RA
QG018-01	D03	HQP009649	NM_000586	IL2
QG018-01	D04	HQP009650	NM_000417	IL2RA
QG018-01	D05	HQP009781	NM_002460	IRF4

QG018-01	D06	HQP009784	NM_006147	IRF6
QG018-01	D07	HQP009251	NM_002163	IRF8
QG018-01	D08	HQP009806	NM_002209	ITGAL
QG018-01	D09	HQP009827	NM_000889	ITGB7
QG018-01	D10	HQP009835	NM_005546	ITK
QG018-01	D11	HQP009850	NM_004972	JAK2
QG018-01	D12	HQP009854	NM_002229	JUNB
QG018-01	E01	HQP010569	NM_005565	LCP2
QG018-01	E02	HQP010930	NM_001033667	LY9
QG018-01	E03	HQP006296	NM_015364	LY96
QG018-01	E04	HQP001119	NM_014268	MAPRE2
QG018-01	E05	HQP011597	NM_002467	MYC
QG018-01	E06	HQP000858	NM_006599	NFAT5
QG018-01	E07	HQP011789	NM_012340	NFATC2
QG018-01	E08	HQP011792	NM_004555	NFATC3
QG018-01	E09	HQP011932	NM_002526	NT5E
QG018-01	E10	HQP012662	NM_005018	PDCD1
QG018-01	E11	HQP012668	NM_002598	PDCD2
QG018-01	E12	HQP012717	NM_000922	PDE3B
QG018-01	F01	HQP013528	NM_006235	POU2AF1
QG018-01	F02	HQP016740	NM_001198	PRDM1
QG018-01	F03	HQP015540	NM_000955	PTGER1
QG018-01	F04	HQP015563	NM_000958	PTGER4
QG018-01	F05	HQP007113	NM_012411	PTPN22
QG018-01	F06	HQP015908	NM_002838	PTPRC
QG018-01	F07	HQP015925	NM_002843	PTPRJ
QG018-01	F08	HQP000328	NM_005855	RAMP1
QG018-01	F09	HQP009574	NM_005349	RBPJ
QG018-01	F10	HQP016251	NM_002922	RGS1
QG018-01	F11	HQP016542	NM_014624	S100A6
QG018-01	F12	HQP016851	NM_022367	SEMA4A
QG018-01	G01	HQP017767	NM_003150	STAT3
QG018-01	G02	HQP017770	NM_003151	STAT4
QG018-01	G03	HQP017771	NM_003152	STAT5A
QG018-01	G04	HQP017775	NM_003153	STAT6
QG018-01	G05	HQP018056	NM_003244	TGIF1
QG018-01	G06	HQP021536	NM_004195	TNFRSF18
QG018-01	G07	HQP014424	NM_018647	TNFRSF19
QG018-01	G08	HQP018149	NM_001066	TNFRSF1B
QG018-01	G09	HQP009716	NM_001561	TNFRSF9
QG018-01	G10	HQP021496	NM_003807	TNFSF14
QG018-01	G11	HQP018329	NM_003326	TNFSF4
QG018-01	G12	HQP002207	NM_001837	CCR3
QG018-01	H01	HGDC		
QG018-01	H02	HGDC		
QG018-01	H03	HQP006940	NM_002046	GAPDH
QG018-01	H04	HQP016381	NM_001101	ACTB

QG018-01	H05	HQP015171	NM_004048	B2M
QG018-01	H06	HQP006171	NM_012423	RPL13A
QG018-01	H07	HQP009026	NM_000194	HPRT1
QG018-01	H08	HQP054253	NR_003286	RN18S1
QG018-01	H09	RT		
QG018-01	H10	RT		
QG018-01	H11	PCR		
QG018-01	H12	PCR		

Limited Use License

Following terms and conditions apply to use of ExProfile™ Human FoxP3 Target Genes 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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