

ExProfile™ Human Blood Coagulation Related Gene qPCR Array

For focused group profiling of human blood coagulation genes expression

Cat. No. QG085-A (1 x 96-well plate, Format A)

Cat. No. QG085-B (1 x 96-well plate, Format B)

Cat. No. QG085-C (1 x 96-well plate, Format C)

Cat. No. QG085-D (1 x 96-well plate, Format D)

Cat. No. QG085-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 blood coagulation related gene qPCR array profiles the expression of 84 human genes related to blood coagulation. 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 coagulation factors, proteases, and other genes involved in signal pathway of blood coagulation. This array allows researchers to study the related genes to gain understanding of their roles in the functioning and characterization of blood coagulation.

- QG085 plate 01: 84 unique gene PCR primer pairs

Shipping and storage condition

Shipped at room temperate

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	VTN	VCAN	TNNT2	THPO	THBS1	THBD	TFPI	SERPINF2	SERPINE1	SERPIND1	SERPINC1	SERPINB9
B	SERPINA5	SERPINA1	SELPLG	ROCK2	PROS1	PROCR	PROC	PLG	PLAU	PLAU	PLAT	P2RY12
C	MTHFR	MMRN1	MMP2	MFGE8	MCFD2	LRP1	LMAN1	KNG1	KLKB1	ITGB6	ITGB3	ITGA2B
D	ITGA2	IL1B	HSPA5	HS6ST3	HS3ST5	HRG	HNF4A	HGF	GATA4	GAS6	FN1	FGL2
E	FGB	FGA	F8	F5	F3	F2RL3	F2RL2	F2RL1	F2R	F2	F13B	F13A1
F	F12	F11	F10	ENTPD1	ELA2	CD63	CD36	CAV1	CALR	BDKRB1	AVPR1A	ASGR2
G	ANXA5	ADIPOQ	ACE	A2M	F7	BDKRB2	CPB2	FGG	GGCX	SERPINA10	SERPINC1	HGFAC
H	HGDC	HGDC	GAPDH	ACTB	B2M	RPL13A	HPRT1	RN18S1	RT	RT	PCR	PCR

Figure1. Illustration of QG085 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
QG085-01	A01	HQP018502	NM_000638	VTN
QG085-01	A02	HQP003299	NM_004385	VCAN
QG085-01	A03	HQP018155	NM_000364	TNNT2
QG085-01	A04	HQP018074	NM_000460	THPO
QG085-01	A05	HQP018068	NM_003246	THBS1
QG085-01	A06	HQP018067	NM_000361	THBD
QG085-01	A07	HQP018038	NM_001032281	TFPI
QG085-01	A08	HQP013260	NM_000934	SERPINF2
QG085-01	A09	HQP012154	NM_000602	SERPINE1
QG085-01	A10	HQP008737	NM_000185	SERPIND1
QG085-01	A11	HQP011620	NM_000488	SERPINC1
QG085-01	A12	HQP013131	NM_004155	SERPINB9
QG085-01	B01	HQP012332	NM_000624	SERPINA5
QG085-01	B02	HQP013122	NM_000295	SERPINA1
QG085-01	B03	HQP016747	NM_003006	SELPLG
QG085-01	B04	HQP022805	NM_004850	ROCK2
QG085-01	B05	HQP015059	NM_000313	PROS1
QG085-01	B06	HQP000652	NM_006404	PROCR
QG085-01	B07	HQP015041	NM_000312	PROC
QG085-01	B08	HQP013257	NM_000301	PLG
QG085-01	B09	HQP013205	NM_001005376	PLAUR
QG085-01	B10	HQP013204	NM_002658	PLAU
QG085-01	B11	HQP013201	NM_000930	PLAT
QG085-01	B12	HQP017176	NM_022788	P2RY12
QG085-01	C01	HQP011547	NM_005957	MTHFR
QG085-01	C02	HQP005585	NM_007351	MMRN1
QG085-01	C03	HQP011256	NM_004530	MMP2
QG085-01	C04	HQP011188	NM_005928	MFGE8
QG085-01	C05	HQP021938	NM_139279	MCFD2
QG085-01	C06	HQP010870	NM_002332	LRP1
QG085-01	C07	HQP010660	NM_005570	LMAN1
QG085-01	C08	HQP010114	NM_000893	KNG1
QG085-01	C09	HQP010104	NM_000892	KLKB1
QG085-01	C10	HQP009826	NM_000888	ITGB6
QG085-01	C11	HQP009818	NM_000212	ITGB3
QG085-01	C12	HQP009795	NM_000419	ITGA2B
QG085-01	D01	HQP009794	NM_002203	ITGA2

QG085-01	D02	HQP009641	NM_000576	IL1B
QG085-01	D03	HQP009083	NM_005347	HSPA5
QG085-01	D04	HQP007336	NM_153456	HS6ST3
QG085-01	D05	HQP005363	NM_153612	HS3ST5
QG085-01	D06	HQP009048	NM_000412	HRG
QG085-01	D07	HQP008908	NM_000457	HNF4A
QG085-01	D08	HQP008800	NM_000601	HGF
QG085-01	D09	HQP007183	NM_002052	GATA4
QG085-01	D10	HQP007125	NM_000820	GAS6
QG085-01	D11	HQP006022	NM_002026	FN1
QG085-01	D12	HQP000999	NM_006682	FGL2
QG085-01	E01	HQP005398	NM_005141	FGB
QG085-01	E02	HQP005396	NM_000508	FGA
QG085-01	E03	HQP005061	NM_000132	F8
QG085-01	E04	HQP005058	NM_000130	F5
QG085-01	E05	HQP005057	NM_001993	F3
QG085-01	E06	HQP021852	NM_003950	F2RL3
QG085-01	E07	HQP005056	NM_004101	F2RL2
QG085-01	E08	HQP005055	NM_005242	F2RL1
QG085-01	E09	HQP005053	NM_001992	F2R
QG085-01	E10	HQP005052	NM_000506	F2
QG085-01	E11	HQP005070	NM_001994	F13B
QG085-01	E12	HQP005069	NM_000129	F13A1
QG085-01	F01	HQP005068	NM_000505	F12
QG085-01	F02	HQP005066	NM_000128	F11
QG085-01	F03	HQP005064	NM_000504	F10
QG085-01	F04	HQP022883	NM_001776	ENTPD1
QG085-01	F05	HQP004689	NM_001972	ELA2
QG085-01	F06	HQP023069	NM_001040034	CD63
QG085-01	F07	HQP022821	NM_000072	CD36
QG085-01	F08	HQP021313	NM_001753	CAV1
QG085-01	F09	HQP019841	NM_004343	CALR
QG085-01	F10	HQP016506	NM_000710	BDKRB1
QG085-01	F11	HQP014302	NM_000706	AVPR1A
QG085-01	F12	HQP011288	NM_001181	ASGR2
QG085-01	G01	HQP008829	NM_001154	ANXA5
QG085-01	G02	HQP022625	NM_004797	ADIPOQ
QG085-01	G03	HQP004081	NM_000789	ACE
QG085-01	G04	HQP008678	NM_000014	A2M
QG085-01	G05	HQP005059	NM_000131	F7
QG085-01	G06	HQP016516	NM_000623	BDKRB2

QG085-01	G07	HQP002836	NM_001872	CPB2
QG085-01	G08	HQP005441	NM_000509	FGG
QG085-01	G09	HQP007377	NM_000821	GGCX
QG085-01	G10	HQP012463	NM_016186	SERPINA10
QG085-01	G11	HQP018130	NM_000062	SERPING1
QG085-01	G12	HQP008811	NM_001528	HGFAC
QG085-01	H01	HGDC		
QG085-01	H02	HGDC		
QG085-01	H03	HQP006940	NM_002046	GAPDH
QG085-01	H04	HQP016381	NM_001101	ACTB
QG085-01	H05	HQP015171	NM_004048	B2M
QG085-01	H06	HQP006171	NM_012423	RPL13A
QG085-01	H07	HQP009026	NM_000194	HPRT1
QG085-01	H08	HQP054253	NR_003286	RN18S1
QG085-01	H09	RT		
QG085-01	H10	RT		
QG085-01	H11	PCR		
QG085-01	H12	PCR		

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