

ExProfile™ Human EGF/PDGF Signaling Related Gene qPCR Array

For focused group profiling of human EGF/PDGF signaling related gene expression

Cat. No. QG015-A (1 x 96-well plate, Format A)

Cat. No. QG015-B (1 x 96-well plate, Format B)

Cat. No. QG015-C (1 x 96-well plate, Format C)

Cat. No. QG015-D (1 x 96-well plate, Format D)

Cat. No. QG015-E (1 x 96-well plate, Format E)

Plates available either 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 EGF/PDGF signaling related gene qPCR array profiles the expression of 84 human genes related to EGF/PDGF signal transduction. These genes are carefully chosen for their close pathway correlation based on a thorough literature search of peer-reviewed publications, and primarily include genes that encode members of the EGF (epidermal growth factor) and PDGF (platelet-derived growth factor) signaling pathways. This array allows researchers to study the pathway-related genes to gain understanding of their roles in EGF/PDGF signaling pathways.

- QG015 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	AKT1	AKT2	AKT3	ARAF	ATF1	ATF2	BAD	BCL2	BRAF	CASP3	CASP9	CBL
B	CCND1	CHUK	COL1A1	CREB1	CSNK2A1	DUSP1	DUSP6	EGF	EGFR	EGR1	EIF4E	ELK1
C	EPS8	FASLG	FN1	FOS	FOXO3A	GRB2	GSK3A	GSK3B	HBEGF	HRAS	IKKBK	IL2
D	JAK1	JUN	LTA	MAP2K1	MAP2K4	MAP2K7	MAP3K2	MAPK1	MAPK10	MAPK3	MAPK8	MAPK9
E	MKNK1	MMP7	NFATC3	NFKB1	NRAS	NUP62	PDGFA	PDGFB	PDGFRA	PDPK1	PIK3CA	PIK3R1
F	PIK3R2	PLAT	PLCG1	PPP2CA	PRKCA	PTEN	RAF1	RAP1A	RASA1	RHOA	RPS6KA5	RPS6KB1
G	SHC1	SRC	STAT1	STAT3	STAT5A	TP53	CASP9	HPRT1	CSNK2A1	DUSP6	NCK2	RASA1
H	HGDC	HGDC	GAPDH	ACTB	B2M	RPL13A	HPRT1	RN18S1	RT	RT	PCR	PCR

Figure1. Illustration of QG015 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
QG015-01	A01	HQP054002	NM_005163	AKT1
QG015-01	A02	HQP004995	NM_001626	AKT2
QG015-01	A03	HQP000001	NM_005465	AKT3
QG015-01	A04	HQP009832	NM_001654	ARAF
QG015-01	A05	HQP011667	NM_005171	ATF1
QG015-01	A06	HQP002912	NM_001880	ATF2
QG015-01	A07	HQP015538	NM_004322	BAD
QG015-01	A08	HQP016211	NM_000633	BCL2
QG015-01	A09	HQP017733	NM_004333	BRAF
QG015-01	A10	HQP020297	NM_004346	CASP3
QG015-01	A11	HQP020648	NM_001229	CASP9
QG015-01	A12	HQP021430	NM_005188	CBL
QG015-01	B01	HQP016204	NM_053056	CCND1
QG015-01	B02	HQP001708	NM_001278	CHUK
QG015-01	B03	HQP002462	NM_000088	COL1A1
QG015-01	B04	HQP002907	NM_004379	CREB1
QG015-01	B05	HQP003277	NM_001895	CSNK2A1
QG015-01	B06	HQP004498	NM_004417	DUSP1
QG015-01	B07	HQP004504	NM_001946	DUSP6
QG015-01	B08	HQP004599	NM_001963	EGF
QG015-01	B09	HQP004605	NM_005228	EGFR
QG015-01	B10	HQP004612	NM_001964	EGR1
QG015-01	B11	HQP004675	NM_001968	EIF4E
QG015-01	B12	HQP004749	NM_005229	ELK1
QG015-01	C01	HQP004961	NM_004447	EPS8
QG015-01	C02	HQP009671	NM_000639	FASLG
QG015-01	C03	HQP006022	NM_002026	FN1
QG015-01	C04	HQP006188	NM_005252	FOS
QG015-01	C05	HQP005759	NM_001455	FOXO3A
QG015-01	C06	HQP008291	NM_002086	GRB2
QG015-01	C07	HQP008468	NM_019884	GSK3A
QG015-01	C08	HQP054075	NM_002093	GSK3B
QG015-01	C09	HQP004493	NM_001945	HBEGF
QG015-01	C10	HQP009036	NM_005343	HRAS
QG015-01	C11	HQP009639	NM_001556	IKBKB
QG015-01	C12	HQP009649	NM_000586	IL2
QG015-01	D01	HQP009849	NM_002227	JAK1
QG015-01	D02	HQP009853	NM_002228	JUN
QG015-01	D03	HQP010907	NM_000595	LTA
QG015-01	D04	HQP014907	NM_002755	MAP2K1
QG015-01	D05	HQP016830	NM_003010	MAP2K4

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QG015-01	D06	HQP014926	NM_145185	MAP2K7
QG015-01	D07	HQP000881	NM_006609	MAP3K2
QG015-01	D08	HQP014848	NM_002745	MAPK1
QG015-01	D09	HQP014900	NM_002753	MAPK10
QG015-01	D10	HQP014855	NM_002746	MAPK3
QG015-01	D11	HQP014886	NM_002750	MAPK8
QG015-01	D12	HQP014896	NM_002752	MAPK9
QG015-01	E01	HQP021299	NM_003684	MKNK1
QG015-01	E02	HQP011258	NM_002423	MMP7
QG015-01	E03	HQP011792	NM_004555	NFATC3
QG015-01	E04	HQP011807	NM_003998	NFKB1
QG015-01	E05	HQP011914	NM_002524	NRAS
QG015-01	E06	HQP006291	NM_012346	NUP62
QG015-01	E07	HQP012847	NM_002607	PDGFA
QG015-01	E08	HQP012856	NM_002608	PDGFB
QG015-01	E09	HQP012866	NM_006206	PDGFRA
QG015-01	E10	HQP012979	NM_002613	PDPK1
QG015-01	E11	HQP013150	NM_006218	PIK3CA
QG015-01	E12	HQP013155	NM_181504	PIK3R1
QG015-01	F01	HQP013158	NM_005027	PIK3R2
QG015-01	F02	HQP013201	NM_000930	PLAT
QG015-01	F03	HQP013238	NM_002660	PLCG1
QG015-01	F04	HQP014115	NM_002715	PPP2CA
QG015-01	F05	HQP014706	NM_002737	PRKCA
QG015-01	F06	HQP015535	NM_000314	PTEN
QG015-01	F07	HQP016088	NM_002880	RAF1
QG015-01	F08	HQP053987	NM_002884	RAP1A
QG015-01	F09	HQP016125	NM_002890	RASA1
QG015-01	F10	HQP010229	NM_001664	RHOA
QG015-01	F11	HQP022404	NM_004755	RPS6KA5
QG015-01	F12	HQP016471	NM_003161	RPS6KB1
QG015-01	G01	HQP017080	NM_003029	SHC1
QG015-01	G02	HQP017696	NM_005417	SRC
QG015-01	G03	HQP017764	NM_007315	STAT1
QG015-01	G04	HQP017767	NM_003150	STAT3
QG015-01	G05	HQP017771	NM_003152	STAT5A
QG015-01	G06	HQP018175	NM_000546	TP53
QG015-01	G07	HQP020649	NM_032996	CASP9
QG015-01	G08	HQP009026	NM_000194	HPRT1
QG015-01	G09	HQP003278	NM_177560	CSNK2A1
QG015-01	G10	HQP004505	NM_022652	DUSP6
QG015-01	G11	HQP020713	NM_001004722	NCK2
QG015-01	G12	HQP016126	NM_022650	RASA1
QG015-01	H01	HGDC		
QG015-01	H02	HGDC		
QG015-01	H03	HQP006940	NM_002046	GAPDH
QG015-01	H04	HQP016381	NM_001101	ACTB

Product Data Sheet

QG015-01	H05	HQP015171	NM_004048	B2M
QG015-01	H06	HQP006171	NM_012423	RPL13A
QG015-01	H07	HQP009026	NM_000194	HPRT1
QG015-01	H08	HQP054253	NR_003286	RN18S1
QG015-01	H09	RT		
QG015-01	H10	RT		
QG015-01	H11	PCR		
QG015-01	H12	PCR		

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Following terms and conditions apply to use of ExProfile™ Human EGF/PDGF Signaling 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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