

ExProfileTM Human Neurotrophin and Receptors Related Gene qPCR Array

For focused group profiling of human neurotrophin and receptors genes expression

Cat. No. QG093-A (1 x 96-well plate, Format A)

Cat. No. QG093-B (1 x 96-well plate, Format B)

Cat. No. QG093-C (1 x 96-well plate, Format C)

Cat. No. QG093-D (1 x 96-well plate, Format D)

Cat. No. QG093-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 neurotrophin and receptors related gene qPCR array profiles the expression of 84 human genes related to neuronal system. These genes are carefully chosen for their close correlation based on a thorough literature search of peer-reviewed publications, mainly including genes that encode neurotrophins, neuropeptides and their receptors involved in neuronal cell growth and differentiation, neuronal regeneration and survival, neuronal signaling and neuronal apoptosis. This array allows researchers to study the related genes to gain understanding of their roles in the functioning and characterization of neuronal system.

- QG093 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

GeneCopia 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 TM 7 (Standard 96-well block)
B (96-well)	Applied Biosystems	7500 (Fast block), 7900HT (Fast block), StepOnePlus TM , ViiA TM 7 (Fast block)
C (96-well)	Bio-Rad Laboratories	iCycler iQ [®] , MyiQ TM , iQ TM 5
D (96-well)	Bio-Rad Laboratories	CFX96 TM , DNA Engine Opticon TM , DNA Engine Opticon 2 TM , Chromo4 TM
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	NRG1	FGFR1	HPRT1	FAS	TRO	TP53	TGFB1	TGFA	TFG	TACR1	STAT4	STAT3
B	STAT2	STAT1	PTGER2	NTRK2	NTF3	NRG4	NRG2	NRG1	NR112	NPY2R	NPY1R	NPY
C	NPFF	NGFR	NGFB	NF1	NELL1	MYC	MT3	MEF2C	LIFR	LIF	IL6ST	IL6R
D	IL6	IL1R1	IL1B	IL10RA	IL10	HSPB1	GRPR	NPFFR2	GMFG	GMFB	GFRA3	GFRA2
E	GNDF	GALR1	FUS	FRS3	FRS2	FOS	FGF9	FGF2	FAS	CXCR4	CX3CR1	CRHBP
F	CNTFR	CNTF	CD40	CCKAR	CBLN1	BCL2	BAX	ADCYAP1R1	CRHR1	MC2R	NTF5	NTSR1
G	PSPN	UCN	BDNF	CRH	FGFR1	HCRT	MAGED1	NGFRAP1	NTRK1	PNOC	PPYR1	TRO
H	HGDC	HGDC	GAPDH	ACTB	B2M	RPL13A	HPRT1	RN18S1	RT	RT	PCR	PCR

Figure1. Illustration of QG093 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
QG093-01	A01	HQP008818	NM_004495	NRG1
QG093-01	A02	HQP005430	NM_023107	FGFR1
QG093-01	A03	HQP009026	NM_000194	HPRT1
QG093-01	A04	HQP009653	NM_152872	FAS
QG093-01	A05	HQP018250	NM_016157	TRO
QG093-01	A06	HQP018175	NM_000546	TP53
QG093-01	A07	HQP018044	NM_000660	TGFB1
QG093-01	A08	HQP018043	NM_003236	TGFA
QG093-01	A09	HQP054009	NM_006070	TFG
QG093-01	A10	HQP017867	NM_001058	TACR1
QG093-01	A11	HQP017770	NM_003151	STAT4
QG093-01	A12	HQP017767	NM_003150	STAT3
QG093-01	B01	HQP017766	NM_005419	STAT2
QG093-01	B02	HQP017764	NM_007315	STAT1
QG093-01	B03	HQP015544	NM_000956	PTGER2
QG093-01	B04	HQP011945	NM_006180	NTRK2
QG093-01	B05	HQP011933	NM_002527	NTF3
QG093-01	B06	HQP003284	NM_138573	NRG4
QG093-01	B07	HQP022888	NM_013982	NRG2
QG093-01	B08	HQP008820	NM_013957	NRG1
QG093-01	B09	HQP021631	NM_022002	NR1I2
QG093-01	B10	HQP011907	NM_000910	NPY2R
QG093-01	B11	HQP011906	NM_000909	NPY1R
QG093-01	B12	HQP011874	NM_000905	NPY
QG093-01	C01	HQP021348	NM_003717	NPFF
QG093-01	C02	HQP011828	NM_002507	NGFR
QG093-01	C03	HQP011827	NM_002506	NGFB
QG093-01	C04	HQP011774	NM_000267	NF1
QG093-01	C05	HQP011760	NM_006157	NELL1
QG093-01	C06	HQP011597	NM_002467	MYC
QG093-01	C07	HQP011539	NM_005954	MT3
QG093-01	C08	HQP011151	NM_002397	MEF2C
QG093-01	C09	HQP010608	NM_002310	LIFR
QG093-01	C10	HQP010607	NM_002309	LIF
QG093-01	C11	HQP009674	NM_002184	IL6ST
QG093-01	C12	HQP009672	NM_000565	IL6R
QG093-01	D01	HQP009670	NM_000600	IL6

QG093-01	D02	HQP009642	NM_000877	IL1R1
QG093-01	D03	HQP009641	NM_000576	IL1B
QG093-01	D04	HQP009686	NM_001558	IL10RA
QG093-01	D05	HQP009685	NM_000572	IL10
QG093-01	D06	HQP009089	NM_001540	HSPB1
QG093-01	D07	HQP008464	NM_005314	GRPR
QG093-01	D08	HQP001011	NM_053036	NPFFR2
QG093-01	D09	HQP022878	NM_004877	GMFG
QG093-01	D10	HQP007740	NM_004124	GMFB
QG093-01	D11	HQP007376	NM_001496	GFRA3
QG093-01	D12	HQP007374	NM_001495	GFRA2
QG093-01	E01	HQP007346	NM_000514	GDNF
QG093-01	E02	HQP006820	NM_001480	GALR1
QG093-01	E03	HQP006451	NM_004960	FUS
QG093-01	E04	HQP000954	NM_006653	FRS3
QG093-01	E05	HQP054010	NM_006654	FRS2
QG093-01	E06	HQP006188	NM_005252	FOS
QG093-01	E07	HQP005416	NM_002010	FGF9
QG093-01	E08	HQP005403	NM_002006	FGF2
QG093-01	E09	HQP009651	NM_000043	FAS
QG093-01	E10	HQP018803	NM_003467	CXCR4
QG093-01	E11	HQP003691	NM_001337	CX3CR1
QG093-01	E12	HQP002967	NM_001882	CRHBP
QG093-01	F01	HQP002427	NM_001842	CNTFR
QG093-01	F02	HQP002424	NM_000614	CNTF
QG093-01	F03	HQP022955	NM_001250	CD40
QG093-01	F04	HQP021647	NM_000730	CCKAR
QG093-01	F05	HQP021445	NM_004352	CBLN1
QG093-01	F06	HQP016211	NM_000633	BCL2
QG093-01	F07	HQP015964	NM_004324	BAX
QG093-01	F08	HQP001980	NM_001118	ADCYAP1R1
QG093-01	F09	HQP002971	NM_004382	CRHR1
QG093-01	F10	HQP011094	NM_000529	MC2R
QG093-01	F11	HQP011934	NM_006179	NTF5
QG093-01	F12	HQP011959	NM_002531	NTSR1
QG093-01	G01	HQP015033	NM_004158	PSPN
QG093-01	G02	HQP018400	NM_003353	UCN
QG093-01	G03	HQP016545	NM_001709	BDNF
QG093-01	G04	HQP002962	NM_000756	CRH
QG093-01	G05	HQP005427	NM_015850	FGFR1
QG093-01	G06	HQP008741	NM_001524	HCRT

QG093-01	G07	HQP054012	NM_006986	MAGED1
QG093-01	G08	HQP007435	NM_014380	NGFRAP1
QG093-01	G09	HQP011940	NM_002529	NTRK1
QG093-01	G10	HQP013298	NM_006228	PNOC
QG093-01	G11	HQP014388	NM_005972	PPYR1
QG093-01	G12	HQP018249	NM_001039705	TRO
QG093-01	H01	HGDC		
QG093-01	H02	HGDC		
QG093-01	H03	HQP006940	NM_002046	GAPDH
QG093-01	H04	HQP016381	NM_001101	ACTB
QG093-01	H05	HQP015171	NM_004048	B2M
QG093-01	H06	HQP006171	NM_012423	RPL13A
QG093-01	H07	HQP009026	NM_000194	HPRT1
QG093-01	H08	HQP054253	NR_003286	RN18S1
QG093-01	H09	RT		
QG093-01	H10	RT		
QG093-01	H11	PCR		
QG093-01	H12	PCR		

Limited Use License

Following terms and conditions apply to use of ExProfile™ Human Ion Channels 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.

Limited Warranty

GeneCopoeia warrants that the Product meets the specifications described in the accompanying Product Datasheet. If it is proven to the satisfaction of GeneCopoeia that the Product fails to meet these specifications, GeneCopoeia will replace the Product. In the event a replacement cannot be provided, GeneCopoeia will provide the purchaser with a refund. This limited warranty shall not extend to anyone other than the original purchaser of the Product. Notice of nonconforming products must be made to GeneCopoeia within 30 days of receipt of the Product. GeneCopoeia's liability is expressly limited to replacement of Product or a refund limited to the actual purchase price.

GeneCopoeia's liability does not extend to any damages arising from use or improper use of the Product, or losses associated with the use of additional materials or reagents. This limited warranty is the sole and exclusive warranty. GeneCopoeia does not provide any other warranties of any kind, expressed or implied, including the merchantability or fitness of the Product for a particular purpose.

GeneCopoeia is committed to providing our customers with high-quality products. If you should have any questions or concerns about any GeneCopoeia products, please contact us at 301-762-0888.

© 2016 GeneCopoeia, Inc.

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