ExProfile™ Human Huntingtons Disease Related Gene qPCR Array

For focused group profiling of human huntingtons disease genes expression

Cat. No. QG082-A (1 x 96-well plate, Format A)
Cat. No. QG082-B (1 x 96-well plate, Format B)
Cat. No. QG082-C (1 x 96-well plate, Format C)
Cat. No. QG082-D (1 x 96-well plate, Format D)
Cat. No. QG082-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 huntingtons disease related gene qPCR array profiles the expression of 84 human genes related to huntingtons disease. These genes are carefully chosen for their close correlation based on a thorough literature search of peer-reviewed publications, mainly including genes that encode known Huntingtin cofactors and downstream interactors. This array allows researchers to study the related genes to gain understanding of their roles in the functioning and characterization of huntingtons disease.

- QG082 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℃

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 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	TSPAN7	TRIP10	TP53	TIMP2	TIMP1	TGM3	TGM2	TGM1	TBP	SP1	SLC1A2	SGK
B	SETDB1	SETD2	SCN4B	RIPK2	RASA1	PSME3	PRPF40B	PRNP	PLEKHA8	PDE10A	NPY	NCOR1
C	MTHFR	MAOB	LEP	KMO	KCNJ4	KCNJ2	KALRN	IFT57	HIP2	HIP1	HD	GRIN2A
D	GRIN1	GRB2	GIT1	GHRL	GDNF	GAPDH	GAD1	FRAP1	FOS	FGF2	EP300	EGR1
E	DNAJB2	DLD	DCTN1	CREBBP	CLTC	CEBPA	CDK5	CBS	CASP8	CASP6	CASP3	CASP1
F	CAPN7	CAPN5	CAPN10	CAPN1	CALML5	CALML3	CALM3	CALM2	CALM1	CALB1	BAX	ATXN1
G	ATF2	AKT1	ADORA2A	QPRT	TCERG1	CLTA	DFFB	H2AFX	HAP1	JPH3	LOC646658	PPP1R1B
H	**HGDC**	**HGDC**	**GAPDH**	**ACTB**	**B2M**	**RPL13A**	**HPRT1**	**RN18S1**	**RT**	**RT**	**PCR**	**PCR**

Figure1. Illustration of QG082 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
QG082-01	A01	HQP018120	NM_004615	TSPAN7
QG082-01	A02	HQP022531	NM_004240	TRIP10
QG082-01	A03	HQP018175	NM_000546	TP53
QG082-01	A04	HQP018093	NM_003255	TIMP2
QG082-01	A05	HQP018092	NM_003254	TIMP1
QG082-01	A06	HQP018063	NM_003245	TGM3
QG082-01	A07	HQP018061	NM_004613	TGM2
QG082-01	A08	HQP018060	NM_000359	TGM1
QG082-01	A09	HQP017928	NM_003194	TBP
QG082-01	A10	HQP017640	NM_138473	SP1
QG082-01	A11	HQP017318	NM_004171	SLC1A2
QG082-01	A12	HQP017005	NM_005627	SGK
QG082-01	B01	HQP023308	NM_012432	SETDB1
QG082-01	B02	HQP008383	NM_014159	SETD2
QG082-01	B03	HQP016600	NM_174934	SCN4B
QG082-01	B04	HQP021524	NM_003821	RIPK2
QG082-01	B05	HQP016125	NM_002890	RASA1
QG082-01	B06	HQP000241	NM_005789	PSME3
QG082-01	B07	HQP006702	NM_001031698	PRPF40B
QG082-01	B08	HQP015032	NM_000311	PRNP
QG082-01	B09	HQP020918	NM_032639	PLEKHA8
QG082-01	B10	HQP000968	NM_006661	PDE10A
QG082-01	B11	HQP011874	NM_000905	NPY
QG082-01	B12	HQP022978	NM_006311	NCOR1
QG082-01	C01	HQP011547	NM_005957	MTHFR
QG082-01	C02	HQP011008	NM_000898	MAOB
QG082-01	C03	HQP010581	NM_000230	LEP
QG082-01	C04	HQP021287	NM_003679	KMO
QG082-01	C05	HQP010007	NM_004981	KCNJ4
QG082-01	C06	HQP010003	NM_000891	KCNJ2
QG082-01	C07	HQP021838	NM_001024660	KALRN
QG082-01	C08	HQP014035	NM_018010	IFT57
QG082-01	C09	HQP008834	NM_005339	HIP2
QG082-01	C10	HQP008833	NM_005338	HIP1
QG082-01	C11	HQP008744	NM_002111	HD
QG082-01	C12	HQP008371	NM_000833	GRIN2A

QG082-01	D01	HQP008367	NM_000832	GRIN1
QG082-01	D02	HQP008291	NM_002086	GRB2
QG082-01	D03	HQP008324	NM_014030	GIT1
QG082-01	D04	HQP012996	NM_016362	GHRL
QG082-01	D05	HQP007346	NM_000514	GDNF
QG082-01	D06	HQP006940	NM_002046	GAPDH
QG082-01	D07	HQP006683	NM_000817	GAD1
QG082-01	D08	HQP006426	NM_004958	FRAP1
QG082-01	D09	HQP006188	NM_005252	FOS
QG082-01	D10	HQP005403	NM_002006	FGF2
QG082-01	D11	HQP004897	NM_001429	EP300
QG082-01	D12	HQP004612	NM_001964	EGR1
QG082-01	E01	HQP009074	NM_001039550	DNAJB2
QG082-01	E02	HQP004336	NM_000108	DLD
QG082-01	E03	HQP004096	NM_004082	DCTN1
QG082-01	E04	HQP002920	NM_001079846	CREBBP
QG082-01	E05	HQP002128	NM_004859	CLTC
QG082-01	E06	HQP000615	NM_004364	CEBPA
QG082-01	E07	HQP000261	NM_004935	CDK5
QG082-01	E08	HQP021518	NM_000071	CBS
QG082-01	E09	HQP018966	NM_001080124	CASP8
QG082-01	E10	HQP020427	NM_001226	CASP6
QG082-01	E11	HQP020297	NM_004346	CASP3
QG082-01	E12	HQP020207	NM_001223	CASP1
QG082-01	F01	HQP006132	NM_014296	CAPN7
QG082-01	F02	HQP018286	NM_004055	CAPN5
QG082-01	F03	HQP001299	NM_021251	CAPN10
QG082-01	F04	HQP020065	NM_005186	CAPN1
QG082-01	F05	HQP013039	NM_017422	CALML5
QG082-01	F06	HQP019834	NM_005185	CALML3
QG082-01	F07	HQP019811	NM_005184	CALM3
QG082-01	F08	HQP019707	NM_001743	CALM2
QG082-01	F09	HQP019580	NM_006888	CALM1
QG082-01	F10	HQP019024	NM_004929	CALB1
QG082-01	F11	HQP015964	NM_004324	BAX
QG082-01	F12	HQP016578	NM_000332	ATXN1
QG082-01	G01	HQP002912	NM_001880	ATF2
QG082-01	G02	HQP004991	NM_001014431	AKT1
QG082-01	G03	HQP002833	NM_000675	ADORA2A
QG082-01	G04	HQP006134	NM_014298	QPRT
QG082-01	G05	HQP001045	NM_001040006	TCERG1

QG082-01	G06	HQP002110	NM_001076677	CLTA
QG082-01	G07	HQP004203	NM_001004285	DFFB
QG082-01	G08	HQP008703	NM_002105	H2AFX
QG082-01	G09	HQP021847	NM_001079870	HAP1
QG082-01	G10	HQP015551	NM_020655	JPH3
QG082-01	G11	HQP053965	NM_001105579	LOC646658
QG082-01	G12	HQP020511	NM_032192	PPP1R1B
QG082-01	H01	HGDC		
QG082-01	H02	HGDC		
QG082-01	H03	HQP006940	NM_002046	GAPDH
QG082-01	H04	HQP016381	NM_001101	ACTB
QG082-01	H05	HQP015171	NM_004048	B2M
QG082-01	H06	HQP006171	NM_012423	RPL13A
QG082-01	H07	HQP009026	NM_000194	HPRT1
QG082-01	H08	HQP054253	NR_003286	RN18S1
QG082-01	H09	RT		
QG082-01	H10	RT		
QG082-01	H11	PCR		
QG082-01	H12	PCR		

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Following terms and conditions apply to use of ExProfile™ Human Huntingtons Disease 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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