

ExProfile™ Human Nuclear Receptors and Coregulators Related Gene qPCR Array

For focused group profiling of human nuclear receptors and coregulators genes expression

Cat. No. QG040-A (1 x 96-well plate, Format A)

Cat. No. QG040-B (1 x 96-well plate, Format B)

Cat. No. QG040-C (1 x 96-well plate, Format C)

Cat. No. QG040-D (1 x 96-well plate, Format D)

Cat. No. QG040-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 nuclear receptors and coregulators related gene qPCR array profiles the expression of 84 human genes related to nuclear receptors and coregulators. These genes are carefully chosen for their close correlation based on a thorough literature search of peer-reviewed publications, mainly including genes that encode various nuclear receptors, transcription factors and regulators, as well as chromatin modification molecules and other nuclear receptor co-regulators. This array allows researchers to study the related genes to gain understanding of their roles in the functioning and characterization of nuclear receptors and coregulators.

- QG040 plate 01: 84 unique gene PCR primer pairs

Shipping and storage condition

Shipped at room temperature

Stable for at least 6 months when stored at -20°C

Array format

GeneCopoela 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	PPARA	BRD8	AR	HPRT1	NR2C1	VDR	TRIP4	THRB	THRAP5	THRAP4	THRAP1	THRA
B	RXRB	RXRA	RBPJ	RARG	RARB	RARA	PSMC3	PPARGC1B	PPARGC1A	PPARG	PPARD	PPARBP
C	PPARA	PCAF	NRIP1	NR4A1	NR3C2	NR3C1	NR2F6	NR2F2	NR2C2	NR1I2	NR1H4	NR1H3
D	NR1H2	NR1D2	NR1D1	NR0B2	NOTCH2	NONO	NFKB2	NCOR1	TGS1	NCOA4	NCOA2	MTA1
E	MED4	MED12	HTATIP	HDAC7A	HDAC6	HDAC5	HDAC4	HDAC3	HDAC2	HDAC1	ESRRG	ESRRA
F	ESR2	ESR1	DDX5	CRSP6	CRSP2	CREBBP	COPS2	ARNT	AR	AHR	NR0B1	RORA
G	RXRG	BRD8	ESRRB	HMGAI	HNF4A	PSMC5	NCOA1	NCOA3	NR1I3	NR2C1	NR2E3	NR2F1
H	HGDC	HGDC	GAPDH	ACTB	B2M	RPL13A	HPRT1	RN18S1	RT	RT	PCR	PCR

Figure1. Illustration of QG040 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
QG040-01	A01	HQP013618	NM_032644	PPARA
QG040-01	A02	HQP001030	NM_006696	BRD8
QG040-01	A03	HQP009802	NM_001011645	AR
QG040-01	A04	HQP009026	NM_000194	HPRT1
QG040-01	A05	HQP018228	NM_001032287	NR2C1
QG040-01	A06	HQP018474	NM_000376	VDR
QG040-01	A07	HQP022535	NM_016213	TRIP4
QG040-01	A08	HQP018079	NM_000461	THRB
QG040-01	A09	HQP000044	NM_005481	THRAP5
QG040-01	A10	HQP023303	NM_014815	THRAP4
QG040-01	A11	HQP023420	NM_005121	THRAP1
QG040-01	A12	HQP018077	NM_003250	THRA
QG040-01	B01	HQP016527	NM_021976	RXRB
QG040-01	B02	HQP016526	NM_002957	RXRA
QG040-01	B03	HQP009574	NM_005349	RBPJ
QG040-01	B04	HQP016118	NM_000966	RARG
QG040-01	B05	HQP016116	NM_000965	RARB
QG040-01	B06	HQP016114	NM_000964	RARA
QG040-01	B07	HQP015346	NM_002804	PSMC3
QG040-01	B08	HQP002750	NM_133263	PPARGC1B
QG040-01	B09	HQP001016	NM_013261	PPARGC1A
QG040-01	B10	HQP013634	NM_015869	PPARG
QG040-01	B11	HQP013627	NM_006238	PPARD
QG040-01	B12	HQP013635	NM_004774	PPARBP
QG040-01	C01	HQP054001	NM_005036	PPARA
QG040-01	C02	HQP021621	NM_003884	PCAF
QG040-01	C03	HQP020042	NM_003489	NRIP1
QG040-01	C04	HQP008900	NM_002135	NR4A1
QG040-01	C05	HQP011251	NM_000901	NR3C2
QG040-01	C06	HQP008401	NM_000176	NR3C1
QG040-01	C07	HQP004966	NM_005234	NR2F6
QG040-01	C08	HQP018031	NM_021005	NR2F2
QG040-01	C09	HQP018230	NM_003298	NR2C2
QG040-01	C10	HQP021631	NM_022002	NR1I2
QG040-01	C11	HQP023437	NM_005123	NR1H4
QG040-01	C12	HQP000086	NM_005693	NR1H3
QG040-01	D01	HQP018431	NM_007121	NR1H2
QG040-01	D02	HQP023440	NM_005126	NR1D2
QG040-01	D03	HQP022925	NM_021724	NR1D1
QG040-01	D04	HQP020670	NM_021969	NR0B2

QG040-01	D05	HQP011875	NM_024408	NOTCH2
QG040-01	D06	HQP011864	NM_007363	NONO
QG040-01	D07	HQP053985	NM_002502	NFKB2
QG040-01	D08	HQP022978	NM_006311	NCOR1
QG040-01	D09	HQP023063	NM_024831	TGS1
QG040-01	D10	HQP019661	NM_005437	NCOA4
QG040-01	D11	HQP000603	NM_006540	NCOA2
QG040-01	D12	HQP022096	NM_004689	MTA1
QG040-01	E01	HQP008386	NM_014166	MED4
QG040-01	E02	HQP023419	NM_005120	MED12
QG040-01	E03	HQP000630	NM_006388	HTATIP
QG040-01	E04	HQP012862	NM_016596	HDAC7A
QG040-01	E05	HQP000022	NM_006044	HDAC6
QG040-01	E06	HQP000024	NM_005474	HDAC5
QG040-01	E07	HQP023167	NM_006037	HDAC4
QG040-01	E08	HQP021612	NM_003883	HDAC3
QG040-01	E09	HQP008746	NM_001527	HDAC2
QG040-01	E10	HQP008745	NM_004964	HDAC1
QG040-01	E11	HQP005005	NM_001438	ESRRG
QG040-01	E12	HQP005003	NM_004451	ESRRA
QG040-01	F01	HQP005002	NM_001437	ESR2
QG040-01	F02	HQP004998	NM_000125	ESR1
QG040-01	F03	HQP004144	NM_004396	DDX5
QG040-01	F04	HQP022755	NM_004268	CRSP6
QG040-01	F05	HQP022465	NM_004229	CRSP2
QG040-01	F06	HQP002921	NM_004380	CREBBP
QG040-01	F07	HQP022524	NM_004236	COPS2
QG040-01	F08	HQP010924	NM_001668	ARNT
QG040-01	F09	HQP009801	NM_000044	AR
QG040-01	F10	HQP004658	NM_001621	AHR
QG040-01	F11	HQP004563	NM_000475	NR0B1
QG040-01	F12	HQP016374	NM_134260	RORA
QG040-01	G01	HQP016529	NM_006917	RXRG
QG040-01	G02	HQP001032	NM_183359	BRD8
QG040-01	G03	HQP005004	NM_004452	ESRRB
QG040-01	G04	HQP054033	NM_145904	HMGA1
QG040-01	G05	HQP008912	NM_178849	HNF4A
QG040-01	G06	HQP015364	NM_002805	PSMC5
QG040-01	G07	HQP021389	NM_003743	NCOA1
QG040-01	G08	HQP020041	NM_181659	NCOA3
QG040-01	G09	HQP023436	NM_005122	NR1I3
QG040-01	G10	HQP018229	NM_003297	NR2C1
QG040-01	G11	HQP000004	NM_014249	NR2E3
QG040-01	G12	HQP018030	NM_005654	NR2F1
QG040-01	H01	HGDC		
QG040-01	H02	HGDC		

QG040-01	H03	HQP006940	NM_002046	GAPDH
QG040-01	H04	HQP016381	NM_001101	ACTB
QG040-01	H05	HQP015171	NM_004048	B2M
QG040-01	H06	HQP006171	NM_012423	RPL13A
QG040-01	H07	HQP009026	NM_000194	HPRT1
QG040-01	H08	HQP054253	NR_003286	RN18S1
QG040-01	H09	RT		
QG040-01	H10	RT		
QG040-01	H11	PCR		
QG040-01	H12	PCR		

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