

ExProfile™ Human Nuclear Hormone Receptors Related Gene qPCR Array

For focused group profiling of human nuclear hormone receptors genes expression

Cat. No. QG092-A (1 x 96-well plate, Format A)

Cat. No. QG092-B (1 x 96-well plate, Format B)

Cat. No. QG092-C (1 x 96-well plate, Format C)

Cat. No. QG092-D (1 x 96-well plate, Format D)

Cat. No. QG092-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 hormone receptors related gene qPCR array profiles the expression of 84 human genes related to nuclear hormone receptors. These genes are carefully chosen for their close correlation based on a thorough literature search of peer-reviewed publications, mainly including genes that encode androgen receptors, estrogen receptors, glucocorticoid receptors, retinoic acid receptors, thyroid hormone receptors, steroid hormone receptors, other nuclear receptors and related molecules. This array allows researchers to study the related genes to gain understanding of their roles in the functioning and characterization of nuclear hormone receptors.

- QG092 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

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	NR1I2	TSHR	RORC	RORA	RARB	PPARG	NR3C1	NR5A2	ESR2	AR	BRD8	PGRMC2
B	NR1H3	NR1D2	NR1H4	NR1D1	NR1I2	NR0B2	NR4A3	VDR	NR1H2	TSHR	TRHR	TRH
C	NR2C2	NR2C1	THRB	THRA	NR2F2	RXRB	RXRA	RORC	RORB	RARG	RARB	RARA
D	PTGER3	PPARG	PPARD	PPARA	PGR	NR4A2	NPM1	NR3C2	HNF4G	HNF4A	NR4A1	NR3C1
E	GNRHR	GHR	ESRRG	ESRRA	ESR2	ESR1	NR2F6	EMR1	AR	AHR	NR0B1	CRHR1
F	GHSR	RORA	NR2E1	RXRG	ESRRB	NR5A2	NR1H3	NR6A1	RXRG	NR2F1	NR1I3	NR2E3
G	NR2E3	ESRRG	GHRHR	GHSR	GNRHR	HNF4A	NPM1	NR1I3	NR1D2	THRA	NR2C1	NR4A3
H	HGDC	HGDC	GAPDH	ACTB	B2M	RPL13A	HPRT1	RN18S1	RT	RT	PCR	PCR

Figure1. Illustration of QG092 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
QG092-01	A01	HQP021631	NM_022002	NR1I2
QG092-01	A02	HQP018272	NM_001018036	TSHR
QG092-01	A03	HQP016379	NM_005060	RORC
QG092-01	A04	HQP016375	NM_134261	RORA
QG092-01	A05	HQP016117	NM_016152	RARB
QG092-01	A06	HQP013634	NM_015869	PPARG
QG092-01	A07	HQP008402	NM_001020825	NR3C1
QG092-01	A08	HQP006438	NM_205860	NR5A2
QG092-01	A09	HQP005002	NM_001437	ESR2
QG092-01	A10	HQP009802	NM_001011645	AR
QG092-01	A11	HQP001030	NM_006696	BRD8
QG092-01	A12	HQP000508	NM_006320	PGRMC2
QG092-01	B01	HQP000086	NM_005693	NR1H3
QG092-01	B02	HQP023440	NM_005126	NR1D2
QG092-01	B03	HQP023437	NM_005123	NR1H4
QG092-01	B04	HQP022925	NM_021724	NR1D1
QG092-01	B05	HQP021630	NM_003889	NR1I2
QG092-01	B06	HQP020670	NM_021969	NR0B2
QG092-01	B07	HQP019536	NM_006981	NR4A3
QG092-01	B08	HQP018474	NM_000376	VDR
QG092-01	B09	HQP018431	NM_007121	NR1H2
QG092-01	B10	HQP018271	NM_000369	TSHR
QG092-01	B11	HQP018242	NM_003301	TRHR
QG092-01	B12	HQP018241	NM_007117	TRH
QG092-01	C01	HQP018230	NM_003298	NR2C2
QG092-01	C02	HQP018228	NM_001032287	NR2C1
QG092-01	C03	HQP018079	NM_000461	THRB
QG092-01	C04	HQP018077	NM_003250	THRA
QG092-01	C05	HQP018031	NM_021005	NR2F2
QG092-01	C06	HQP016527	NM_021976	RXRB
QG092-01	C07	HQP016526	NM_002957	RXRA
QG092-01	C08	HQP016378	NM_001001523	RORC
QG092-01	C09	HQP016377	NM_006914	RORB
QG092-01	C10	HQP016118	NM_000966	RARG
QG092-01	C11	HQP016116	NM_000965	RARB
QG092-01	C12	HQP016114	NM_000964	RARA
QG092-01	D01	HQP015552	NM_000957	PTGER3

QG092-01	D02	HQP013633	NM_005037	PPARG
QG092-01	D03	HQP013627	NM_006238	PPARD
QG092-01	D04	HQP013617	NM_001001928	PPARA
QG092-01	D05	HQP013099	NM_000926	PGR
QG092-01	D06	HQP011968	NM_006186	NR4A2
QG092-01	D07	HQP011891	NM_001037738	NPM1
QG092-01	D08	HQP011251	NM_000901	NR3C2
QG092-01	D09	HQP008914	NM_004133	HNF4G
QG092-01	D10	HQP008908	NM_000457	HNF4A
QG092-01	D11	HQP008900	NM_002135	NR4A1
QG092-01	D12	HQP008401	NM_000176	NR3C1
QG092-01	E01	HQP007781	NM_000406	GNRHR
QG092-01	E02	HQP007395	NM_000163	GHR
QG092-01	E03	HQP005005	NM_001438	ESRRG
QG092-01	E04	HQP005003	NM_004451	ESRRA
QG092-01	E05	HQP005001	NM_001040275	ESR2
QG092-01	E06	HQP004998	NM_000125	ESR1
QG092-01	E07	HQP004966	NM_005234	NR2F6
QG092-01	E08	HQP004829	NM_001974	EMR1
QG092-01	E09	HQP009801	NM_000044	AR
QG092-01	E10	HQP004658	NM_001621	AHR
QG092-01	E11	HQP004563	NM_000475	NR0B1
QG092-01	E12	HQP002971	NM_004382	CRHR1
QG092-01	F01	HQP007399	NM_004122	GHSR
QG092-01	F02	HQP016373	NM_002943	RORA
QG092-01	F03	HQP018119	NM_003269	NR2E1
QG092-01	F04	HQP016529	NM_006917	RXRG
QG092-01	F05	HQP005004	NM_004452	ESRRB
QG092-01	F06	HQP006437	NM_003822	NR5A2
QG092-01	F07	HQP054190	NM_001130101	NR1H3
QG092-01	F08	HQP007259	NM_001489	NR6A1
QG092-01	F09	HQP016528	NM_001009598	RXRG
QG092-01	F10	HQP018030	NM_005654	NR2F1
QG092-01	F11	HQP023422	NM_001077469	NR1I3
QG092-01	F12	HQP000004	NM_014249	NR2E3
QG092-01	G01	HQP000005	NM_016346	NR2E3
QG092-01	G02	HQP054187	NM_001134285	ESRRG
QG092-01	G03	HQP007398	NM_001009824	GHRHR
QG092-01	G04	HQP007400	NM_198407	GHSR
QG092-01	G05	HQP007782	NM_001012763	GNRHR
QG092-01	G06	HQP008909	NM_001030003	HNF4A

QG092-01	G07	HQP011892	NM_002520	NPM1
QG092-01	G08	HQP023423	NM_001077470	NR1I3
QG092-01	G09	HQP054189	NM_001145425	NR1D2
QG092-01	G10	HQP018078	NM_199334	THRA
QG092-01	G11	HQP018229	NM_003297	NR2C1
QG092-01	G12	HQP019537	NM_173199	NR4A3
QG092-01	H01	HGDC		
QG092-01	H02	HGDC		
QG092-01	H03	HQP006940	NM_002046	GAPDH
QG092-01	H04	HQP016381	NM_001101	ACTB
QG092-01	H05	HQP015171	NM_004048	B2M
QG092-01	H06	HQP006171	NM_012423	RPL13A
QG092-01	H07	HQP009026	NM_000194	HPRT1
QG092-01	H08	HQP054253	NR_003286	RN18S1
QG092-01	H09	RT		
QG092-01	H10	RT		
QG092-01	H11	PCR		
QG092-01	H12	PCR		

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