

ExProfile™ Human Histone Modification Enzyme Related Gene qPCR Array

For focused group profiling of human histone modification enzyme genes expression

Cat. No. QG089-A (1 x 96-well plate, Format A)

Cat. No. QG089-B (1 x 96-well plate, Format B)

Cat. No. QG089-C (1 x 96-well plate, Format C)

Cat. No. QG089-D (1 x 96-well plate, Format D)

Cat. No. QG089-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 histone modification enzyme related gene qPCR array profiles the expression of 84 human genes related to histone modification. 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 enzymes involved in methylation, acetylation, phosphorylation, adenosine acidification, ubiquitination, ADP-ribosylation and other modification process of histone. This array allows researchers to study the related genes to gain understanding of their roles in histone modification.

- QG089 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™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	SETDB2	SETD7	JHDM1D	EPC1	HDAC11	EHMT1	SUV39H2	SAP130	SMYD3	NSD1	MLL5	ASH1L
B	HDAC8	JMJD1A	JMJD2D	ELP3	WHSC1L1	ING3	JMJD1B	HDAC7A	SIRT6	SETD2	TAF5L	ELP4
C	MYST4	SIRT1	JMJD2C	AOF2	FBXL11	SIRT2	SRCAP	JARID1B	MGEA5	TAF6L	HTATIP	TADA3L
D	PRMT5	HDAC5	HDAC6	SUPT7L	SETDB1	HDAC4	SETD1A	HDAC9	JMJD2A	CLOCK	MTA2	PCAF
E	HDAC3	JARID1C	NCOA3	MLL2	MYST3	PRDM2	WHSC1	UTX	TAF12	TAF10	TAF9	TAF1
F	TADA2L	MEN1	JARID2	HDAC2	HDAC1	GCN5L2	EZH2	EZH1	EP300	CREBBP	BRCA2	JARID1D
G	JMJD3	SUV39H1	SUPT3H	HAT1	NCOA1	EDF1	CDYL	CDY2A	EHMT2	PRDM7	MYST2	JMJD2B
H	HGDC	HGDC	GAPDH	ACTB	B2M	RPL13A	HPRT1	RN18S1	RT	RT	PCR	PCR

Figure1. Illustration of QG089 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
QG089-01	A01	HQP020342	NM_031915	SETDB2
QG089-01	A02	HQP019798	NM_030648	SETD7
QG089-01	A03	HQP019797	NM_030647	JHDM1D
QG089-01	A04	HQP019656	NM_025209	EPC1
QG089-01	A05	HQP019357	NM_024827	HDAC11
QG089-01	A06	HQP019284	NM_024757	EHMT1
QG089-01	A07	HQP019201	NM_024670	SUV39H2
QG089-01	A08	HQP019083	NM_024545	SAP130
QG089-01	A09	HQP017124	NM_022743	SMYD3
QG089-01	A10	HQP016908	NM_022455	NSD1
QG089-01	A11	HQP014823	NM_018682	MLL5
QG089-01	A12	HQP014792	NM_018489	ASH1L
QG089-01	B01	HQP014790	NM_018486	HDAC8
QG089-01	B02	HQP014740	NM_018433	JMJD1A
QG089-01	B03	HQP014599	NM_018039	JMJD2D
QG089-01	B04	HQP014093	NM_018091	ELP3
QG089-01	B05	HQP013847	NM_017778	WHSC1L1
QG089-01	B06	HQP013570	NM_019071	ING3
QG089-01	B07	HQP013031	NM_016604	JMJD1B
QG089-01	B08	HQP012861	NM_015401	HDAC7A
QG089-01	B09	HQP012846	NM_016539	SIRT6
QG089-01	B10	HQP008383	NM_014159	SETD2
QG089-01	B11	HQP007502	NM_001025247	TAF5L
QG089-01	B12	HQP007324	NM_019040	ELP4

QG089-01	C01	HQP006172	NM_012330	MYST4
QG089-01	C02	HQP006080	NM_012238	SIRT1
QG089-01	C03	HQP005736	NM_015061	JMJD2C
QG089-01	C04	HQP005682	NM_015013	AOF2
QG089-01	C05	HQP005645	NM_012308	FBXL11
QG089-01	C06	HQP005604	NM_012237	SIRT2
QG089-01	C07	HQP000969	NM_006662	SRCAP
QG089-01	C08	HQP000900	NM_006618	JARID1B
QG089-01	C09	HQP000857	NM_012215	MGEA5
QG089-01	C10	HQP000758	NM_006473	TAF6L
QG089-01	C11	HQP000630	NM_006388	HTATIP
QG089-01	C12	HQP000572	NM_006354	TADA3L
QG089-01	D01	HQP000500	NM_001039619	PRMT5
QG089-01	D02	HQP000023	NM_001015053	HDAC5
QG089-01	D03	HQP000022	NM_006044	HDAC6
QG089-01	D04	HQP023359	NM_014860	SUPT7L
QG089-01	D05	HQP023308	NM_012432	SETDB1
QG089-01	D06	HQP023167	NM_006037	HDAC4
QG089-01	D07	HQP023143	NM_014712	SETD1A
QG089-01	D08	HQP023134	NM_014707	HDAC9
QG089-01	D09	HQP023073	NM_014663	JMJD2A
QG089-01	D10	HQP022927	NM_004898	CLOCK
QG089-01	D11	HQP022336	NM_004739	MTA2
QG089-01	D12	HQP021621	NM_003884	PCAF
QG089-01	E01	HQP021612	NM_003883	HDAC3
QG089-01	E02	HQP020068	NM_004187	JARID1C

QG089-01	E03	HQP020040	NM_006534	NCOA3
QG089-01	E04	HQP019800	NM_003482	MLL2
QG089-01	E05	HQP019414	NM_006766	MYST3
QG089-01	E06	HQP018755	NM_001007257	PRDM2
QG089-01	E07	HQP018521	NM_001042424	WHSC1
QG089-01	E08	HQP018453	NM_021140	UTX
QG089-01	E09	HQP017889	NM_005644	TAF12
QG089-01	E10	HQP017887	NM_006284	TAF10
QG089-01	E11	HQP017884	NM_001015891	TAF9
QG089-01	E12	HQP017873	NM_004606	TAF1
QG089-01	F01	HQP017871	NM_001488	TADA2L
QG089-01	F02	HQP011171	NM_000244	MEN1
QG089-01	F03	HQP009852	NM_004973	JARID2
QG089-01	F04	HQP008746	NM_001527	HDAC2
QG089-01	F05	HQP008745	NM_004964	HDAC1
QG089-01	F06	HQP007253	NM_021078	GCN5L2
QG089-01	F07	HQP005050	NM_004456	EZH2
QG089-01	F08	HQP005049	NM_001991	EZH1
QG089-01	F09	HQP004897	NM_001429	EP300
QG089-01	F10	HQP002920	NM_001079846	CREBBP
QG089-01	F11	HQP017753	NM_000059	BRCA2
QG089-01	F12	HQP020087	NM_004653	JARID1D
QG089-01	G01	HQP005787	NM_001080424	JMJD3
QG089-01	G02	HQP017833	NM_003173	SUV39H1
QG089-01	G03	HQP020846	NM_003599	SUPT3H
QG089-01	G04	HQP021143	NM_001033085	HAT1

QG089-01	G05	HQP021389	NM_003743	NCOA1
QG089-01	G06	HQP021473	NM_003792	EDF1
QG089-01	G07	HQP022740	NM_004824	CDYL
QG089-01	G08	HQP053932	NM_004825	CDY2A
QG089-01	G09	HQP001050	NM_006709	EHMT2
QG089-01	G10	HQP001272	NM_052996	PRDM7
QG089-01	G11	HQP001313	NM_007067	MYST2
QG089-01	G12	HQP005685	NM_015015	JMJD2B
QG089-01	H01	HGDC		
QG089-01	H02	HGDC		
QG089-01	H03	HQP006940	NM_002046	GAPDH
QG089-01	H04	HQP016381	NM_001101	ACTB
QG089-01	H05	HQP015171	NM_004048	B2M
QG089-01	H06	HQP006171	NM_012423	RPL13A
QG089-01	H07	HQP009026	NM_000194	HPRT1
QG089-01	H08	HQP054253	NR_003286	RN18S1
QG089-01	H09	RT		
QG089-01	H10	RT		
QG089-01	H11	PCR		
QG089-01	H12	PCR		

Limited Use License

Following terms and conditions apply to use of ExProfile™ Human Histone Modification Enzyme 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