

qBiomarker Copy Number PCR Array (Rotor-Gene® Format)

Human Kinases & Phosphatases

Cat. no. 337802 VAHS-0001ZR

For real-time PCR-based, copy number analysis

Format	For use with the following real-time cyclers
qBiomarker Copy Number PCR Array, Format R	Rotor-Gene Q, other Rotor-Gene cyclers

Description

The Human Kinases & Phosphatases qBiomarker Copy Number PCR Array profiles the copy number of 23 genes encoding kinases or phosphatases reported to undergo frequent genomic alterations. DNA copy number changes in kinases and phosphatases occur frequently in cancer. The genes on the array encode both key kinases and phosphatases that regulate processes such as the cell cycle, insulin and other hormone receptor signaling, PI-3-K signaling, apoptosis, cell migration, and motility. Genes were chosen from the most frequently amplified or deleted kinase and phosphatase genes based on the primary literature and public databases. This array may serve as a useful tool to help classify samples by genotype and help verify phenotypic biomarkers. The array analyzes each gene in each sample in quadruplicate and includes a stable multi-copy reference assay for accurate copy number determination via appropriate DNA input normalization. The simplicity of the product format and operating procedure allow routine and reliable copy number profiling in any research laboratory with access to a real-time PCR instrument.

For further details, consult the *qBiomarker Copy Number PCR Handbook*.

Shipping and storage

qBiomarker Copy Number PCR Arrays in the Rotor-Gene format are shipped at ambient temperature, on dry ice, or blue ice packs depending on destination and accompanying products. For long term storage, keep plates at -20°C .

Note: Ensure that you have the correct qBiomarker Copy Number PCR Array format for

your real-time cycler (see table above).

Note: Open the package and store the products appropriately immediately on receipt.



Sample & Assay Technologies

Array layout

The 96 real-time assays in the Rotor-Gene format are located in wells 1–96 of the Rotor-Disc® (plate A1–A12=Rotor-Disc 1–12, plate B1–B12=Rotor-Disc 13–24, etc.). To maintain data analysis compatibility, wells 97–100 do not contain real-time assays but will contain master mix to account for weight balance.

Gene table: qBiomarker Copy Number PCR Array

Position	Gene ID	Title	Symbol	Chromosome	Start	End	Assay Catalog #
A01	207	19758446	AKT1	14	105239588	105239716	VPH114-0543285
A02	208	21761123	AKT2	19	40770801	40771000	VPH119-0203855
A03	10000	16526170	AKT3	1	244006201	244006400	VPH101-1220032
A04	238	22016835	ALK	2	30143201	30143400	VPH102-0150717
A05	6790	23374783	AURKA	20	54962801	54963000	VPH120-0274815
A06	1019	18628206	CDK4	12	58145283	58145500	VPH112-0675846
A07	1956	28225285	EGFR	7	55224452	55224525	VPH107-0798903
A08	2064	21154843	ERBB2	17	37871993	37872192	VPH117-0412044
A09	2263	17262424	FGFR2	10	123353223	123353331	VPH110-0685902
A10	2272	23966967	FHIT	3	60522401	60522600	VPH103-0302613
A11	3480	20279899	IGF1R	15	99439986	99440134	VPH115-0520705
A12	6416	20802424	MAP2K4	17	11924801	11925000	VPH117-0059625
B01	4233	28008079	MET	7	116339201	116339400	VPH107-0581697
B02	5156	24944120	PDGFRA	4	55125001	55125200	VPH104-0275626
B03	5163	22733225	PDK1	2	173421201	173421400	VPH102-0867107
B04	5290	24558941	PIK3CA	3	178917201	178917400	VPH103-0894587
B05	84513	28424565	PPAPDC1B	8	38126201	38126400	VPH108-0190632
B06	5728	17024645	PTEN	10	89624401	89624600	VPH110-0448123
B07	5747	28943903	PTK2	8	141993801	141994000	VPH108-0709970
B08	5789	29018521	PTPRD	9	8733601	8733800	VPH109-0043669
B09	6198	21032653	RPS6KB1	17	57970601	57970800	VPH117-0289854
B10	23235	17949452	SIK2	11	111473288	111473422	VPH111-0685184
B11	6794	21853319	STK11	19	1206913	1207202	VPH119-0296051
B12	N/A	N/A	Mref	Multiple	Multiple	Multiple	VPH000-0000000
C01	207	19758446	AKT1	14	105239588	105239716	VPH114-0543285
C02	208	21761123	AKT2	19	40770801	40771000	VPH119-0203855
C03	10000	16526170	AKT3	1	244006201	244006400	VPH101-1220032
C04	238	22016835	ALK	2	30143201	30143400	VPH102-0150717
C05	6790	23374783	AURKA	20	54962801	54963000	VPH120-0274815
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C07	1956	28225285	EGFR	7	55224452	55224525	VPH107-0798903
C08	2064	21154843	ERBB2	17	37871993	37872192	VPH117-0412044
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C10	2272	23966967	FHIT	3	60522401	60522600	VPH103-0302613
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D01	4233	28008079	MET	7	116339201	116339400	VPH107-0581697
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D03	5163	22733225	PDK1	2	173421201	173421400	VPH102-0867107
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D05	84513	28424565	PPAPDC1B	8	38126201	38126400	VPH108-0190632
D06	5728	17024645	PTEN	10	89624401	89624600	VPH110-0448123
D07	5747	28943903	PTK2	8	141993801	141994000	VPH108-0709970
D08	5789	29018521	PTPRD	9	8733601	8733800	VPH109-0043669
D09	6198	21032653	RPS6KB1	17	57970601	57970800	VPH117-0289854
D10	23235	17949452	SIK2	11	111473288	111473422	VPH111-0685184
D11	6794	21853319	STK11	19	1206913	1207202	VPH119-0296051
D12	N/A	N/A	Mref	Multiple	Multiple	Multiple	VPH000-0000000
E01	207	19758446	AKT1	14	105239588	105239716	VPH114-0543285
E02	208	21761123	AKT2	19	40770801	40771000	VPH119-0203855
E03	10000	16526170	AKT3	1	244006201	244006400	VPH101-1220032
E04	238	22016835	ALK	2	30143201	30143400	VPH102-0150717
E05	6790	23374783	AURKA	20	54962801	54963000	VPH120-0274815
E06	1019	18628206	CDK4	12	58145283	58145500	VPH112-0675846
E07	1956	28225285	EGFR	7	55224452	55224525	VPH107-0798903
E08	2064	21154843	ERBB2	17	37871993	37872192	VPH117-0412044
E09	2263	17262424	FGFR2	10	123353223	123353331	VPH110-0685902

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E12	6416	20802424	MAP2K4	17	11924801	11925000	VPH117-0059625
F01	4233	28008079	MET	7	116339201	116339400	VPH107-0581697
F02	5156	24944120	PDGFRA	4	55125001	55125200	VPH104-0275626
F03	5163	22733225	PK1	2	173421201	173421400	VPH102-0867107
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F08	5789	29018521	PTPRD	9	8733601	8733800	VPH109-0043669
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H12	N/A	N/A	Mref	Multiple	Multiple	Multiple	VPH000-0000000

Related products

For optimal performance, qBiomarker Copy Number PCR Arrays should be used together with the qBiomarker SYBR[®] Mastermixes for PCR.

Product	Contents	Cat. no.
qBiomarker SYBR ROX [™] FAST Mastermix (2)*	For 2 x 96 assays in 96-well plates; suitable for use with the Rotor-Gene Q	337840
QIAamp DNA Mini Kit (50)	For 50 DNA preps: 50 QIAamp Mini Spin Columns, QIAGEN Proteinase K, Reagents, Buffers, Collection Tubes (2 ml)	51304
QIAamp DNA Mini Kit (250)	For 250 DNA preps: 250 QIAamp Mini Spin Columns, QIAGEN Proteinase K, Reagents, Buffers, Collection Tubes (2 ml)	51306
DNeasy Blood & Tissue Kit (50)	For 50 DNA preps: 50 DNeasy Mini Spin Columns, Proteinase K, Buffers, Collection Tubes (2 ml)	69504
DNeasy Blood & Tissue Kit (250)	For 250 DNA preps: 250 DNeasy Mini Spin Columns, Proteinase K, Buffers, Collection Tubes (2 ml)	69506
QIAamp DNA FFPE Tissue Kit (50)	For 50 DNA preps: 50 QIAamp MinElute [®] Columns, Proteinase K, Buffers, Collection Tubes (2 ml)	69506

* Larger kit sizes available; please inquire.

qBiomarker Copy Number PCR Array products are intended for molecular biology applications. These products are not intended for the diagnosis, prevention, or treatment of a disease.

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