

EpiTect® Methyl II Signature PCR Array (22)

Human Breast Cancer

Cat. no. 335212 EAHS-011ZA

For DNA methylation analysis using MethylScreen™ technology

The Human Breast Cancer EpiTect Methyl II Signature PCR Array profiles the methylation status of 22 tumor suppressor gene promoters whose hypermethylation has been reported in the literature to occur frequently in a variety of breast tumors. Profiling tumor samples with these arrays may help correlate CpG island methylation status with biological phenotypes. The results may also provide insights into the molecular mechanisms and biological pathways behind oncogenesis and cancer pathology. With a simple restriction enzyme digestion and real-time PCR, research studies can analyze the methylation status of 22 different breast cancer genes with this DNA methylation PCR array. The EpiTect Methyl II PCR Arrays use MethylScreen™ technology provided under license from Orion Genomics, LLC. For further details, consult the *EpiTect Methyl II PCR Array Handbook*.

Shipping and storage

EpiTect Methyl II Signature PCR Arrays are shipped at room temperature (15–25°C), on dry ice, or on blue ice depending on the destination and accompanying products. They should be stored at –20°C. Ensure that you have the correct EpiTect Methyl II Signature PCR Array format for your instrument before starting the experiment.

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



Contents

Product	Contents	Cat. no.
EpiTect Methyl II Signature PCR Array (22) Format A	2, 12, or 24 x 96-well plates, Optical Thin-Wall 8-Cap Strips; for use with the following real-time cyclers: Applied Biosystems® models 5700, 7000, 7300, 7500, 7700, 7900HT, ViiA™ 7 (96-well block); Bio-Rad® models iCycler®, iQ™ 5, MyiQ™, MyiQ2; Bio-Rad/MJ Research Chromo4™; Eppendorf® MasterCycler® ep realplex models 2, 2s, 4, 4s; Stratagene® models Mx3005P®, Mx3000P®	Varies
EpiTect Methyl II Signature PCR Array (22) Format C	2, 12, or 24 x 96-well plates, Optical Adhesive Film; for use with the following real-time cyclers: Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)	Varies
EpiTect Methyl II Signature PCR Array (22) Format D	2, 12, or 24 x 96-well plates, Optical Thin-Wall 8-Cap Strips; for use with the following real-time cyclers: Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®	Varies
EpiTect Methyl II Signature PCR Array (22) Format E	4 x 384-well plates, 384EZLoad Covers, Optical Adhesive Film; for use with the following real-time cyclers: Applied Biosystems models 7900HT (384-well block), ViiA 7 (384-well block); Bio-Rad CFX384™	Varies
EpiTect Methyl II Signature PCR Array (22) Format F	2, 12, or 24 x 96-well plates, Optical Adhesive Film; for use with the following real-time cyclers: Roche® LightCycler® 480 (96-well block)	Varies
EpiTect Methyl II Signature PCR Array (22) Format G	4 x 384-well plates, 384EZLoad Covers, Optical Adhesive Film; for use with the following real-time cyclers: Roche: LightCycler 480 (384-well block)	Varies

Array layout

	1	2	3	4	5	6	7	8	9	10	11	12
A	ADAM23	BRCA1	CCNA1	CCND2	CDH1	CDH13	CDKN1C	CDKN2A	ESR1	GSTP1	HIC1	MGMT
B	PRDM2	PTEN	PTGS2	PYCARD	RASSF1	SFN	SLIT2	THBS1	TNFRSF10C	TP73	EP_SEC	EP_DEC
C	ADAM23	BRCA1	CCNA1	CCND2	CDH1	CDH13	CDKN1C	CDKN2A	ESR1	GSTP1	HIC1	MGMT
D	PRDM2	PTEN	PTGS2	PYCARD	RASSF1	SFN	SLIT2	THBS1	TNFRSF10C	TP73	EP_SEC	EP_DEC
E	ADAM23	BRCA1	CCNA1	CCND2	CDH1	CDH13	CDKN1C	CDKN2A	ESR1	GSTP1	HIC1	MGMT
F	PRDM2	PTEN	PTGS2	PYCARD	RASSF1	SFN	SLIT2	THBS1	TNFRSF10C	TP73	EP_SEC	EP_DEC
G	ADAM23	BRCA1	CCNA1	CCND2	CDH1	CDH13	CDKN1C	CDKN2A	ESR1	GSTP1	HIC1	MGMT
H	PRDM2	PTEN	PTGS2	PYCARD	RASSF1	SFN	SLIT2	THBS1	TNFRSF10C	TP73	EP_SEC	EP_DEC

Gene table

Position	Unigene	GenBank OR miRNA Accession	Gene Symbol OR miRNA ID	Description	Gene Name
A01, C01, E01, G01	Hs.591643	NM_003812	ADAM23	ADAM metallopeptidase domain 23	MDC3
A02, C02, E02, G02	Hs.194143	NM_007294	BRCA1	Breast cancer 1, early onset	BRCA1, BRCC1, BROVCA1, IRIS, PNCA4, PSCP, RNF53
A03, C03, E03, G03	Hs.417050	NM_003914	CCNA1	Cyclin A1	
A04, C04, E04, G04	Hs.376071	NM_001759	CCND2	Cyclin D2	KIAK0002, MGC102758
A05, C05, E05, G05	Hs.461086	NM_004360	CDH1	Cadherin 1, type 1, E-cadherin (epithelial)	Arc-1, CD324, CDHE, ECAD, LCAM, UVO
A06, C06, E06, G06	Hs.654386	NM_001257	CDH13	Cadherin 13, H-cadherin (heart)	CDHH, P105
A07, C07, E07, G07	Hs.106070	NM_000076	CDKN1C	Cyclin-dependent kinase inhibitor 1C (p57, Kip2)	BWCR, BWS, KIP2, WBS, p57
A08, C08, E08, G08	Hs.512599	NM_000077	CDKN2A	Cyclin-dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4)	ARF, CDK4I, CDKN2, CMM2, INK4, INK4A, MLM, MTS-1, MTS1, P14, P14ARF, P16, P16-INK4A, P16INK4, P16INK4A, P19, P19ARF, TP16
A09, C09, E09, G09	Hs.208124	NM_000125	ESR1	Estrogen receptor 1	DKFZp686N23123, ER, ESR, ESRA, Era, NR3A1
A10, C10, E10, G10	Hs.523836	NM_000852	GSTP1	Glutathione S-transferase pi 1	DFN7, FAEES3, GST3, GSTP, PI
A11, C11, E11, G11	Hs.72956	NM_006497	HIC1	Hypermethylated in cancer 1	ZBTB29, ZNF901, hic-1
A12, C12, E12, G12	Hs.501522	NM_002412	MGMT	O-6-methylguanine-DNA methyltransferase	
B01, D01, F01, H01	Hs.371823	NM_015866	PRDM2	PR domain containing 2, with ZNF domain	HUMHOXY1, KMT8, MTB-ZF, RIZ, RIZ1, RIZ2
B02, D02, F02, H02	Hs.500466	NM_000314	PTEN	Phosphatase and tensin homolog	10q23del, BZS, DEC, GLM2, MGC11227, MHAM, MMAC1, PTEN1, TEP1
B03, D03, F03, H03	Hs.196384	NM_000963	PTGS2	Prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase)	COX-2, COX2, GRIPGHS, PGG, HS, PGHS-2, PHS-2, hCox-2
B04, D04, F04, H04	Hs.499094	NM_013258	PYCARD	PYD and CARD domain containing	ASC, CARD5, MGC10332, TMS, TMS-1, TMS1
B05, D05, F05, H05	Hs.476270	NM_007182	RASSF1	Ras association (RalGDS/AF-6) domain family member 1	123F2, NORE2A, RASSF1A, RDA32, REH3P21
B06, D06, F06, H06	Hs.523718	NM_006142	SFN	Stratifin	YWHAS
B07, D07, F07, H07	Hs.29802	NM_004787	SLIT2	Slit homolog 2 (Drosophila)	FLJ14420, SLIL3, Slit-2
B08, D08, F08, H08	Hs.164226	NM_003246	THBS1	Thrombospondin 1	THBS, THBS-1, TSP, TSP-1, TSP1
B09, D09, F09, H09	Hs.655801	NM_003841	TNFRSF10C	Tumor necrosis factor receptor superfamily, member 10c, decoy without an intracellular domain	CD263, DCR1, DCR1-TNFR, LIT, MGC149501, MGC149502, TRAIL-R3, TRAILR3, TRID
B10, D10, F10, H10	Hs.697294	NM_005427	TP73	Tumor protein p73	P73
B11, D11, F11, H11	N/A	SA_00148	EP_SEC	SEC-sensitive enzyme control assay	SEC
B12, D12, F12, H12	N/A	SA_00149	EP_DEC	DEC-dependent enzyme control assay	DEC

Related products

Product	Contents	Cat. no.
EpiTect Methyl II DNA Restriction Kit (12)	Reagents for the cleavage of methylated and unmethylated DNA for processing up to 12 DNA samples; 5x Restriction Digestion Buffer, Methylation-sensitive Enzyme A, Methylation-dependent Enzyme B	335452
RT ² SYBR [®] Green qPCR Mastermixes(2)*	For 2 x 96 assays in 96-well plates; suitable for use with real-time cyclers that do not require a reference dye, including: Bio-Rad models CFX96, CFX384; Bio-Rad/MJ Research models Chromo4, DNA Engine Opticon 2; Roche LightCycler 480 (96-well and 384-well); all other cyclers	330500
RT ² SYBR Green ROX [™] qPCR Mastermixes(2)*	For 2 x 96 assays in 96-well plates; suitable for use with the following real-time cyclers: Applied Biosystems models 5700, 7000, 7300, 7500 [Standard and Fast], 7700, 7900HT 96-well block [Standard and Fast] and 384-well block, StepOnePlus; Eppendorf Mastercycler ep realplex models 2, 2S, 4, 4S; Stratagene models Mx3000P, Mx3005P, Mx4000	330520
RT ² SYBR Green Fluor qPCR Mastermixes(2)*	For 2 x 96 assays in 96-well plates; suitable for use with the following real-time cyclers: Bio-Rad models iCycler, iQ5, MyiQ, MyiQ2	330510
Accessories		
EpiTect Methyl II Custom PCR Array	For methylation analysis of customer-selected genes in a 96-well or 384-well plate format	335112
EpiTect Methyl II Complete PCR Array (94)	For methylation analysis of 94 genes in a 96-well or 384-well plate format	335222
EpiTect Methyl II PCR Assay (200)	Laboratory-tested forward and reverse primers for 200 x 25 μ l reactions; 25 μ l per primer; total volume: 200 μ l	335002
RT ² PCR Array Loading Reservoir	12 x 5 ml capacity, irradiation sterilized reservoirs for convenient sample loading on PCR arrays	338162

* Larger kit sizes available; please inquire.

EpiTect Methyl II Signature PCR Array products are intended for molecular biology applications. These products are not intended for the diagnosis, prevention, or treatment of a disease.

QIAGEN reserves the right to occasionally redesign individual assays on the EpiTect Methyl II PCR Arrays for improved performance. This revision history can be obtained by contacting technical support and providing the batch numbers from your arrays.

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