

EpiTect® Methyl II Signature PCR Array (22)

Human Breast Cancer

Cat. no. 335212 EAHS-011ZE

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

Gene table

Position	Unigene	GenBank OR miRNA Accession	Gene Symbol OR miRNA ID	Description	Gene Name
A01, A02, B01, B02 E01, E02, F01, F02 I01, I02, J01, J02 M01, M02, N01, N02	Hs.591643	NM_003812	ADAM23	ADAM metallopeptidase domain 23	MDC3
A03, A04, B03, B04 E03, E04, F03, F04 I03, I04, J03, J04 M03, M04, N03, N04	Hs.194143	NM_007294	BRCA1	Breast cancer 1, early onset	BRCA1, BRCC1, BROVCA1, IRIS, PNA4, PSCP, RNF53
A05, A06, B05, B06 E05, E06, F05, F06 I05, I06, J05, J06 M05, M06, N05, N06	Hs.417050	NM_003914	CCNA1	Cyclin A1	
A07, A08, B07, B08 E07, E08, F07, F08 I07, I08, J07, J08 M07, M08, N07, N08	Hs.376071	NM_001759	CCND2	Cyclin D2	KIAK0002, MGC102758
A09, A10, B09, B10 E09, E10, F09, F10 I09, I10, J09, J10 M09, M10, N09, N10	Hs.461086	NM_004360	CDH1	Cadherin 1, type 1, E-cadherin (epithelial)	Arc-1, CD324, CDHE, ECAD, LCAM, UVO
A11, A12, B11, B12 E11, E12, F11, F12 I11, I12, J11, J12 M11, M12, N11, N12	Hs.654386	NM_001257	CDH13	Cadherin 13, H-cadherin (heart)	CDHH, P105
A13, A14, B13, B14 E13, E14, F13, F14 I13, I14, J13, J14 M13, M14, N13, N14	Hs.106070	NM_000076	CDKN1C	Cyclin-dependent kinase inhibitor 1C (p57, Kip2)	BWCR, BWS, KIP2, WBS, p57
A15, A16, B15, B16 E15, E16, F15, F16 I15, I16, J15, J16 M15, M16, N15, N16	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
A17, A18, B17, B18 E17, E18, F17, F18 I17, I18, J17, J18 M17, M18, N17, N18	Hs.208124	NM_000125	ESR1	Estrogen receptor 1	DKFZp686N23123, ER, ESR, ESRA, Era, NR3A1
A19, A20, B19, B20 E19, E20, F19, F20 I19, I20, J19, J20 M19, M20, N19, N20	Hs.523836	NM_000852	GSTP1	Glutathione S-transferase pi 1	DFN7, FAEES3, GST3, GSTP, PI
A21, A22, B21, B22 E21, E22, F21, F22 I21, I22, J21, J22 M21, M22, N21, N22	Hs.72956	NM_006497	HIC1	Hypermethylated in cancer 1	ZBTB29, ZNF901, hic-1
A23, A24, B23, B24 E23, E24, F23, F24 I23, I24, J23, J24 M23, M24, N23, N24	Hs.501522	NM_002412	MGMT	O-6-methylguanine-DNA methyltransferase	
C01, C02, D01, D02 G01, G02, H01, H02 K01, K02, L01, L02 O01, O02, P01, P02	Hs.371823	NM_015866	PRDM2	PR domain containing 2, with ZNF domain	HUMHOXY1, KMT8, MTB-ZF, RIZ, RIZ1, RIZ2
C03, C04, D03, D04 G03, G04, H03, H04 K03, K04, L03, L04 O03, O04, P03, P04	Hs.500466	NM_000314	PTEN	Phosphatase and tensin homolog	10q23del, BZS, DEC, GLM2, MGC11227, MHAM, MMAC1, PTEN1, TEPI
C05, C06, D05, D06 G05, G06, H05, H06 K05, K06, L05, L06 O05, O06, P05, P06	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
C07, C08, D07, D08 G07, G08, H07, H08 K07, K08, L07, L08	Hs.499094	NM_013258	PYCARD	PYD and CARD domain containing	ASC, CARD5, MGC10332, TMS, TMS-1, TMS1

Position	Unigene	GenBank OR miRNA Accession	Gene Symbol OR miRNA ID	Description	Gene Name
O07, O08, P07, P08 C09, C10, D09, D10 G09, G10, H09, H10 K09, K10, L09, L10 O09, O10, P09, P10	Hs.476270	NM_007182	RASSF1	Ras association (RalGDS/AF-6) domain family member 1	123F2, NORE2A, RASSF1A, RDA32, REH3P21
C11, C12, D11, D12 G11, G12, H11, H12 K11, K12, L11, L12 O11, O12, P11, P12	Hs.523718	NM_006142	SFN	Stratifin	YWHAS
C13, C14, D13, D14 G13, G14, H13, H14 K13, K14, L13, L14 O13, O14, P13, P14	Hs.29802	NM_004787	SLIT2	Slit homolog 2 (Drosophila)	FLJ14420, SLIL3, Slit-2
C15, C16, D15, D16 G15, G16, H15, H16 K15, K16, L15, L16 O15, O16, P15, P16	Hs.164226	NM_003246	THBS1	Thrombospondin 1	THBS, THBS-1, TSP, TSP-1, TSP1
C17, C18, D17, D18 G17, G18, H17, H18 K17, K18, L17, L18 O17, O18, P17, P18	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
C19, C20, D19, D20 G19, G20, H19, H20 K19, K20, L19, L20 O19, O20, P19, P20	Hs.697294	NM_005427	TP73	Tumor protein p73	P73
C21, C22, D21, D22 G21, G22, H21, H22 K21, K22, L21, L22 O21, O22, P21, P22	N/A	SA_00148	EP_SEC	SEC-sensitive enzyme control assay	SEC
C23, C24, D23, D24 G23, G24, H23, H24 K23, K24, L23, L24 O23, O24, P23, P24	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 µl reactions; 25 µl per primer; total volume: 200 µl	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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