



Methylated DNA Capture Kit

Product Information

Cat.No.

Kit-0551

Product Overview

Methylated DNA Capture Kit is used to enrich methylated DNA.

Description

A core mechanism for epigenetic alterations of genomic DNA is hypermethylation of CpG islands in specific genes and DNA hypomethylation, where methylation of CpG islands involves the course in which DNA methyltransferases (Dnmts) transfer a methyl group from S-adenosyl-L-methionine to the fifth carbon position of the cytosines. Region-specific DNA methylation is mainly found in 5'-CpG-3' dinucleotides within the promoters or in the first exon of genes, which is an important pathway for the repression of gene transcription in diseased cells. DNA hypomethylation is likely caused by methyl-deficiency due to variety of environmental influences. It has been demonstrated that alterations in DNA methylation are associated with many diseases, and especially with cancer.

Applications

The Methylated DNA Capture Kit can be used for enriching methylated DNA from a broad range of species including human, rat, and mouse tissues. The Methylated DNA Capture Kit is suitable for combining the specificity of enriched methylated DNA with qualitative and quantitative PCR, and southern blot as well as DNA microarray.

Usage

For research use only (RUO)

Storage

Store MC1, MC3, Normal Mouse IgG, Anti-5-Methylcytosine, Proteinase K, and 8 -Well Assay Strips at 4°C. Store all other components at room temperature. The kit is stable for up to 6 months from the shipment date, when stored properly. Note: Check if wash buffer, MC3, contains salt precipitates before using. If so, warm (at room temperature or 37°C) and shake the buffer until the salts are re-dissolved.



Methylated DNA Capture Kit

Kit Components

MC1 (antibody buffer) 16 ml
MC2 (reaction buffer) 8 ml
MC3 (wash buffer) 2 x 16 ml
MC4 (DNA release buffer) 4 ml
MC5 (Binding buffer) 8 ml
MC6 (Elution buffer) 1.2 ml
Normal mouse IgG (1 mg/ml)* 20 µl
Proteinase K (10 mg/ml)* 50 µl
Anti-5-methylcytosine (1 mg/ml)* 50 µl
8 well assay strips (with frame) 6 strips
8-well strip caps 6 caps
F-spin column 50 columns
F-collection tube 50 tubes
* For maximum recovery of the products, centrifuge the original vial after thawing prior to opening the cap.

Features & Benefits

Highly efficient enrichment of methylated DNA: >98%
The fastest procedure available, which can be finished within 3 hours.
Strip microplate format makes the assay flexible: manual or high throughput.
Columns for DNA purification are included: save time and reduce labor.
Compatible with all DNA amplification-based approaches.
Simple, reliable, and consistent assay conditions.
