

5-Methylcytosine (5-mC) antibody (mAb)

Catalog No: 39649

RRID: AB_2687950

Clone: 33D3

Isotype: IgG

Application(s): DB, ELISA, FC, ICC, IF, IHC, MeDIP

Reactivity: Human, Not Species Specific

Quantity: 50 µg

Purification: Protein A Chromatography

Host: Mouse

Concentration: 1 µg/µl

Background: 5-Methylcytosine (5-Methylcytidine) is a modified base that is found in the DNA of plants and vertebrates. DNA methylation is an epigenetic event in which DNA methyltransferases (DNMTs) catalyze the reaction of a methyl group to the fifth carbon of cytosine in a CpG dinucleotide. This modification helps to control gene expression and is also involved in genomic imprinting, while aberrant DNA methylation is often associated with disease. The 5-methylcytidine antibody (Clone 33D3) has been developed to discriminate between the modified base and its normal cytosine counterpart, allowing for gene promoter methylation analysis.

Immunogen: Clone 33D3 recognizes the modified base 5-methylcytidine found in plant and vertebrate DNA.

Buffer: Purified IgG in 10 mM phosphate, 0.15 M NaCl and 0.01% thimerosal. Thimerosal is highly toxic.

Application Notes:

Validated Applications:

MeDIP: 1 µg per IP

IHC (FFPE): 1:1000

ELISA: 1:10,000 dilution

Published Applications:

MeDIP

ICC/IF

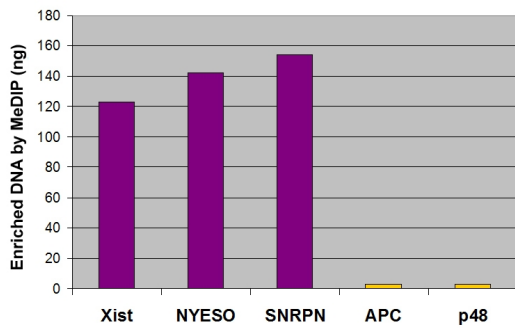
Flow Cytometry

IHC

DB

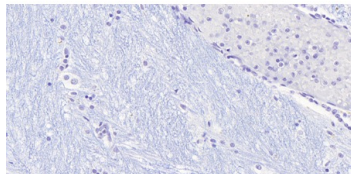
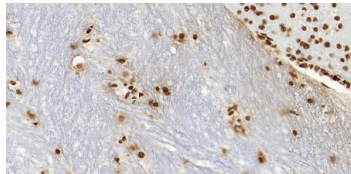
Storage and Guarantee: Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.



5-Methylcytosine antibody (mAb) (Clone 33D3) tested by Methyl-DNA Immunoprecipitation (MeDIP).

Human DNA (500 ng) digested with *Mse* I was subjected to MeDIP and then analyzed by quantitative real-time PCR with primers specific for genes that are normally methylated (Xist, NYESO and SNRPN) or unmethylated (APC and p48). The MeDIP'd DNA (enriched DNA) was plotted.



5-Methylcytosine (5-mc) antibody (pAb) tested by Immunohistochemistry

Punctate nuclear staining pattern is detected in Formalin-fixed, paraffin-embedded tissue sections from human substantia nigra (midbrain). Top Panel: 5-mC antibody at 1:1000 dilution. Bottom Panel: No primary antibody (2nd step antibody alone)