

## 5-Methylcytosine (5-mC) antibody (pAb)

**Catalog Nos:** 61255, 61955, 61256

**RRID:** AB\_2783884

**Isotype:** IgG

**Application(s):** ChIP, DB, IHC, MeDIP

**Reactivity:** Human, Not Species Specific

**Quantities:** 100 µg, 50 µg, 10 µg

**Purification:** Protein A Chromatography

**Host:** Rabbit

**Concentration:** 1 µg/µl

**Molecular Weight:** Not Applicable

**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-methylcytosine antibody has been developed to discriminate between the modified base and its normal cytosine counterpart, allowing for gene promoter methylation analysis.

**Immunogen:** This 5-Methylcytosine (5-mC) antibody was raised against 5-Methyl-cytidine conjugated to KLH and recognizes 5-Methylcytosine.

**Buffer:** Purified IgG in PBS with 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.

### Application Notes:

Applications Validated by Active Motif:

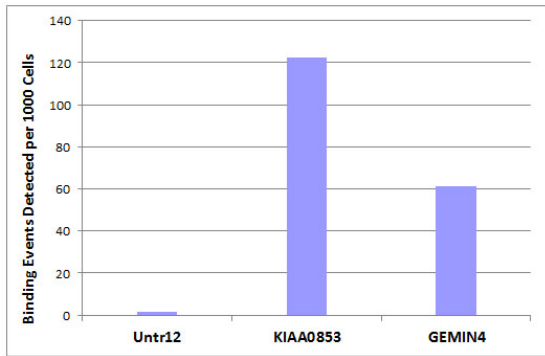
MeDIP: 2 - 10 µg per IP

DB: 2 µg/ml dilution

For 5-methylcytosine, we also offer AbFlex<sup>®</sup> 5-methylcytosine Recombinant Antibody (rAb). For details, see Catalog No. 91187.

**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 (pAb) tested by Methyl-DNA Immunoprecipitation (MeDIP).**

Human DNA (500 ng) digested with MseI and denatured was subjected to MeDIP and then analyzed by quantitative real-time PCR with primers specific for genes that are methylated (KIAA0853, GEMIN4) or unmethylated (Untr12). The amount of MeDIP'd DNA (enriched DNA) was plotted.

**5-methylcytidine antibody (pAb) tested by dot blot analysis.**

DNA from the Methylated DNA Standard Kit (Catalog No. 55008) were spotted on to a positively charged nylon membrane and blotted with 5-methylcytidine antibody recognizing 5-methylcytosine (2 µg/ml dilution).

1    2    3    4    5    6



Lane 1: single stranded unmethylated DNA.

Lane 2: single-stranded DNA containing 5-methylcytosine.

Lane 3: single-stranded DNA 5-hydroxymethylcytosine.

Lane 4: double-stranded unmethylated DNA.

Lane 5: double-stranded DNA containing 5-methylcytosine.

Lane 6: double-stranded DNA containing 5-hydroxymethylcytosine.