3-Methylcytosine (3-mC) antibody (pAb)

Catalog Nos: 61111, 61112
RRID: AB_2793510
Isotype: IgG
Application(s): DB, ICC, IF
Reactivity: Human, Mouse, Not Species Specific

Quantities: 100 µg, 10 µg
Purification: Protein A Chromatography
Host: Rabbit
Concentration: 1 µg/µl

Background: Methylation of DNA can occur non-enzymatically at the nitrogen-three of the cytosine base through spontaneous exposure to endogenous S-adenosyl methionine (SAM). The resulting **3-methylcytosine** (**3-mC**) is mutagenic and must be repaired, which occurs in humans through the base excision repair (BER) or dealkylation via human homologues of the _E. coli_ AlkB protein. **3-methylcytosine** is present in human cell lines and increased levels of **3-mC** impair proliferation.

Immunogen: This 3-methylcytosine antibody was raised against 3-methylcytidine conjugated to KLH and recognizes 3-methylcytosine.

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

Application Notes:
Applications Validated by Active Motif:
DB: 0.1 - 1 µg/ml dilution

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.
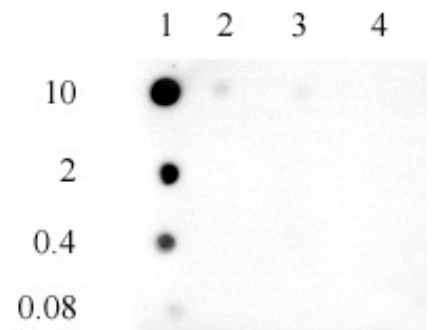
3-Methylcytosine (3-mC, 3-methylcytidine) antibody (pAb) tested by DNA dot blot
BSA conjugated nucleosides (starting at 10ng as indicated) were spotted onto PVDF membrane and blotted with 3-methylcytidine antibody at a dilution of 1:10,000.
Lane 1: 3-methylcytidine.
Lane 2: Cytidine.
Lane 3: 5-methylcytidine.
Lane 4: 5-hydroxymethylcytidine.

Application Key: ChIP = Chromatin Immunoprecipitation; FACS = Flow Cytometry; IF = Immunofluorescence; IHC = Immunohistochemistry; IP = Immunoprecipitation; WB = Western Blot