

AbFlex[®] N6-Methyladenosine (m6A) antibody (rAb)

Catalog Nos: 91261, 91262

Isotype: IgG2a

Application(s): DB, IP

Reactivity: Human, Mouse, Not Species Specific

Quantities: 100 µg, 10 µg

Purification: Protein A Chromatography

Host: Mouse

Concentration: 1 µg/µl

Background: AbFlex[®] antibodies are recombinant antibodies (rAbs) that have been generated using defined DNA sequences to produce highly specific, reproducible antibodies. Each AbFlex antibody contains a 6xHis Tag, a Biotinylation Tag for enzymatic biotin conjugation using the biotin ligase, BirA, and a sortase recognition motif (LPXTG) to attach a variety of labels directly to the antibody including fluorophores, enzymatic substrates (HRP, AP), peptides, drugs as well as solid supports. AbFlex[®] N6-Methyladenosine (m6A) antibody was expressed as full-length IgG with mouse immunoglobulin heavy and light chains (IgG2a isotype) in mammalian 293 cells.

N6-Methyladenosine (m6A) is an RNA modification on the N-6 position of adenosine. This modification has been found to be abundant in the 3' UTR and stop codons of mammalian mRNA. m6A is associated with miRNA binding sites suggesting a potential role in epigenetic gene regulation. FTO and ALKBH are demethylases for 6-methyladenosine while a multiprotein complex that includes METTL3 functions as the methyltransferase. Recent findings revealed that m6A is also present on metazoan DNA, suggesting a genuine epigenetic role for this modification in the context of DNA as well.

Immunogen: This antibody was raised against N6-methyladenosine conjugated to BSA.

Buffer: Purified IgG in 140 mM Hepes, pH 7.5, 70 mM NaCl, 32 mM NaOAc, 0.035% sodium azide, 30% glycerol. Sodium azide is highly toxic.

Application Notes:

Applications Validated by Active Motif:

DB

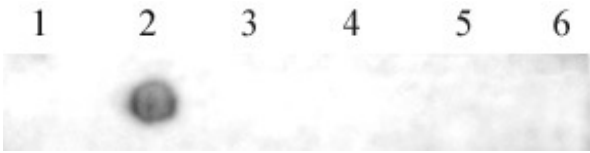
IP: 5 - 10 µg per IP

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.

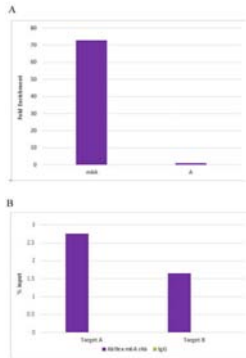
This product is for research use only and is not for use in diagnostic procedures.

AbFlex[®] N6-Methyladenosine (m6A) antibody tested by Dot blot.

3.3 ng of single-stranded DNA oligonucleotides were spotted on to a positively charged nylon membrane and blotted with AbFlex N-6-methyladenosine recombinant antibody (1 µg/ml dilution).



1. unmethylated sequence 1
2. single 6-methyl-adenosine in middle of sequence 1
3. unmethylated sequence 2
4. unmethylated sequence 3
5. single 1-methyl-adenosine in middle of sequence 3



AbFlex[®] N6-Methyladenosine (m6A) antibody tested by RNA immunoprecipitation. (A) *In vitro* RNA transcripts were generated containing either 0 or 10% of the m6A modified base or the A unmodified base and were spiked into 10 µg of total RNA. IP was performed using 10 µg Abflex N6-Methyladenosine antibody followed by Real Time-qPCR. (B) IP was performed using 5 µg Abflex N6-Methyladenosine antibody and 30 µg of total RNA (fragmented to 200 bp) from human hematopoietic stem cells followed by Real Time-qPCR on known methylated RNA. Data was provided courtesy of Dr. Alexandra Patmanidi in Prof. Dr. Achim Leutz's lab, Max-Delbrück-Centrum für Molekulare Medizin (MDC).