AbFlex® METTL3 antibody (rAb)

Catalog Nos: 91333, 91334
Isotype: IgG2a
Reactivity: Human

Quantities: 100 µg, 10 µg
Purification: Protein A Chromatography
Host: Mouse
Concentration: 1 µg/µl
Molecular Weight: 72 kDa

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® METTL3 antibody was expressed as full-length IgG with mouse immunoglobulin heavy and light chains (IgG2a isotype) in mammalian 293 cells.

N6-methylated adenine (m6A) is prevalently present in nearly all RNA types and can be found in all organisms from bacteria to humans. It preferentially appears around stop codons and within long internal exons in mammalian messenger RNAs. m6A plays an important role in the efficiency of mRNA splicing, processing, translation efficiency, editing and mRNA stability. m6A also occurs in other RNA molecules, such as primary miRNA (pri-miRNAs).

METTL3 (methyltransferase-like 3, also known as IME4, M6A, MT-A70) forms a stable N6-methyltransferase heterodimer complex with METTL14, which catalyzes the generation of m6A modification on mammalian nuclear RNAs. METTL3 is the catalytically active subunit, while METTL14 plays a structural role critical for substrate recognition. METTL3 promotes translation by interacting with the translation initiation machinery in the cytoplasm. Its overexpression in a number of cancer cells suggests that it may participate to cancer cell proliferation by promoting mRNA translation.

Immunogen: This antibody was raised against a peptide within the N-terminal region of human METTL3 (N6-adenosine-methyltransferase).This sequence is identical to the same region of mouse METTL3. The antibody is predicted to recognize mouse METTL3, but has not been tested by Active Motif.

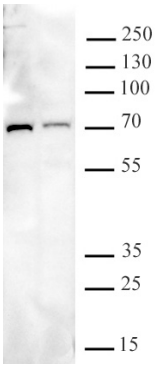
Buffer: 140 mM Hepes, pH 7.5, 70 mM NaCl, 32 mM NaOAc, 0.035% sodium azide, and 30% glycerol. Sodium azide is highly toxic.

Application Notes:
Applications Validated by Active Motif:
WB: 0.5 - 2 µg/ml

For optimal results, we recommend the addition of 0.05% Tween-20 to all blocking solutions to reduce background. Individual optimization may be required.

AbFlex® recombinant antibodies are genetically derived from DNA sequences of parental hybridoma clones. For details on the parental clone, see Catalog No. 65687.

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® METTL3 antibody tested by Western blot.

40 µg of cytoplasmic extract from K562 (lane 1) and HepG2 (lane 2) cells was run on SDS-PAGE and probed with AbFlex METTL3 antibody at 0.5 µg/ml.