

METTL3 (B-23): sc-133783

BACKGROUND

METTL3 (methyltransferase like 3), also known as M6A, IME4, Spo8 or MT-A70, is a 580 amino acid nuclear speckle protein belonging to the methyltransferase superfamily, which includes DNA methyltransferases (Dnmt), histone methyltransferases and catechol-O-methyl transferases, as well as many others. Members of this family have enzymatic activity that results in the transfer of a methyl group to and from DNA, RNA or amino acids. Widely expressed at low levels, it is suggested that METTL3 may be associated with nuclear pre-mRNA splicing components. Considered a N6-methyltransferase, METTL3 methylates adenosine residues of some mRNAs. N6-methyladenosine is present at internal sites of several mRNAs, which may play a role in the efficiency of mRNA splicing, transport or translation. The gene encoding METTL3 is located on human chromosome 14, which houses over 700 genes and comprises nearly 3.5% of the human genome. Produced by alternative splicing events, two isoforms of METTL3 exists.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: METTL3 (human) mapping to 14q11.2; Mettl3 (mouse) mapping to 14 C2.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SOURCE

METTL3 (B-23) is a Protein A purified rabbit polyclonal antibody raised against synthetic METTL3 peptide of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

METTL3 (B-23) is recommended for detection of METTL3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for METTL3 siRNA (h): sc-92172, METTL3 siRNA (m): sc-149387, METTL3 shRNA Plasmid (h): sc-92172-SH, METTL3 shRNA Plasmid (m): sc-149387-SH, METTL3 shRNA (h) Lentiviral Particles: sc-92172-V and METTL3 shRNA (m) Lentiviral Particles: sc-149387-V.

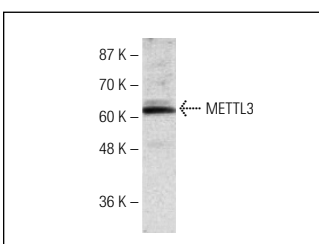
Molecular Weight of METTL3: 64 kDa.

Positive Controls: Raji whole cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



METTL3 (B-23): sc-133783. Western blot analysis of METTL3 expression in Raji whole cell lysate.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.