SANTA CRUZ BIOTECHNOLOGY, INC.

METTL8 (T-16): sc-161851

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

METTL8 (methyltransferase like 8), also known as TIP, is a 291 amino acid cytoplasmic and nuclear protein that exists as multiple alternatively spliced isoforms and is thought to function as a methyltransferase. METTL8 is a member of the methyltransferase superfamily, which includes DNA methyltransferases (Dnmt), histone methyltransferases, catechol-O-methyl transferases and many others. Members of the methyltransferase superfamily have enzymatic activity that results in the transfer of a methyl group to and from DNA, RNA or amino acids. METTL8 is encoded by a gene located on human chromosome 2, which houses over 1,400 genes and comprises nearly 8% of the human genome.

REFERENCES

1. Ijdo, J.W., et al. 1991. Origin of human chromosome 2: an ancestral telomere-telomere fusion. Proc. Natl. Acad. Sci. USA 88: 9051-9055.
2. Avarello, R., et al. 1992. Evidence for an ancestral alphoid domain on the long arm of human chromosome 2. Hum. Genet. 89: 247-249.
3. Hillier, L.W., et al. 2005. Generation and annotation of the DNA sequences of human chromosomes 2 and 4. Nature 434: 724-731.
4. Jakkaraju, S., et al. 2005. TIPs are tension-responsive proteins involved in myogenic versus adipogenic differentiation. Dev. Cell. 9: 39-49.
5. Hublitz, P., et al. 2009. Mechanisms of transcriptional repression by histone lysine methylation. Int. J. Dev. Biol. 53: 335-354.
6. Wu, S.C., Zhang, Y. 2009. Minireview: role of protein methylation and demethylation in nuclear hormone signaling. Mol. Endocrinol. 23: 1323-1334.
7. Liutkeviciute, Z., et al. 2009. Cytosine-5-methyltransferases add aldehydes to DNA. Nat. Chem. Biol. 5: 400-402.

CHROMOSOMAL LOCATION

Genetic locus: METTL8 (human) mapping to 2q31.1.

SOURCE

METTL8 (T-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of METTL8 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-161851 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

RESEARCH USE

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

APPLICATIONS

METTL8 (T-16) is recommended for detection of METTL8 of 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other METTL family members.

Suitable for use as control antibody for METTL8 siRNA (h): sc-94960, METTL8 shRNA Plasmid (h): sc-94960-SH and METTL8 shRNA (h) Lentiviral Particles: sc-94960-V.

Molecular Weight of (predicted) METTL8: 33 kDa.

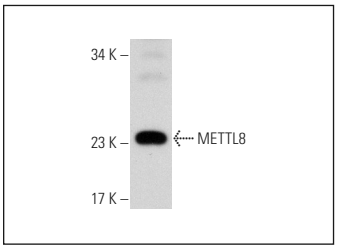
Molecular Weight of (observed) METTL8: 23 kDa.

Positive Controls: PC-3 cell lysate: sc-2220.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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



METTL8 (T-16): sc-161851. Western blot analysis of METTL8 expression in PC-3 whole cell lysate.

PROTOCOLS

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