

# METTL8 (N-12): sc-161849

## 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; Mettl8 (mouse) mapping to 2 C2.

## SOURCE

METTL8 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus 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-161849 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.

## APPLICATIONS

METTL8 (N-12) is recommended for detection of METTL8 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

METTL8 (N-12) is also recommended for detection of METTL8 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for METTL8 siRNA (h): sc-94960, METTL8 siRNA (m): sc-149393, METTL8 shRNA Plasmid (h): sc-94960-SH, METTL8 shRNA Plasmid (m): sc-149393-SH, METTL8 shRNA (h) Lentiviral Particles: sc-94960-V and METTL8 shRNA (m) Lentiviral Particles: sc-149393-V.

Molecular Weight (predicted) of METTL8: 33 kDa.

Molecular Weight (observed) of 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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.