

METTL6 (F-8): sc-515214

BACKGROUND

METTL6 (methyltransferase-like protein 6) is a 255 amino acid enzyme that exists as two different isoforms. METTL6 belongs to the methyltransferase superfamily, which includes DNA methyltransferases (Dnmt), histone methyltransferases, 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. The gene encoding METTL6 maps to human chromosome 3, which is made up of about 214 million bases encoding over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. Marfan syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-tooth disease are a few of the numerous genetic diseases associated with chromosome 3.

REFERENCES

1. Müller, S., et al. 2000. Molecular cytogenetic dissection of human chromosomes 3 and 21 evolution. *Proc. Natl. Acad. Sci. USA* 97: 206-211.
2. Braga, E.A., et al. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. *Mol. Biol.* 37: 194-211.
3. Muzny, D.M., et al. 2006. The DNA sequence, annotation and analysis of human chromosome 3. *Nature* 440: 1194-1198.
4. Ruiz-Herrera, A. and Robinson, T.J. 2008. Evolutionary plasticity and cancer breakpoints in human chromosome 3. *Bioessays* 30: 1126-1137.

CHROMOSOMAL LOCATION

Genetic locus: METTL6 (human) mapping to 3p25.1; Mettl6 (mouse) mapping to 14 B.

SOURCE

METTL6 (F-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 85-107 within an internal region of METTL6 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

METTL6 (F-8) is available conjugated to agarose (sc-515214 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515214 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515214 PE), fluorescein (sc-515214 FITC), Alexa Fluor® 488 (sc-515214 AF488), Alexa Fluor® 546 (sc-515214 AF546), Alexa Fluor® 594 (sc-515214 AF594) or Alexa Fluor® 647 (sc-515214 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515214 AF680) or Alexa Fluor® 790 (sc-515214 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515214 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

METTL6 (F-8) is recommended for detection of METTL6 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for METTL6 siRNA (h): sc-77947, METTL6 siRNA (m): sc-149390, METTL6 shRNA Plasmid (h): sc-77947-SH, METTL6 shRNA Plasmid (m): sc-149390-SH, METTL6 shRNA (h) Lentiviral Particles: sc-77947-V and METTL6 shRNA (m) Lentiviral Particles: sc-149390-V.

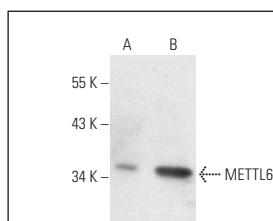
Molecular Weight of METTL6: 30 kDa.

Positive Controls: METTL6 (m): 293T Lysate: sc-121615, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

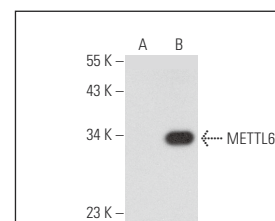
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



METTL6 (F-8): sc-515214. Western blot analysis of METTL6 expression in HeLa (A) and Hep G2 (B) whole cell lysates.



METTL6 (F-8): sc-515214. Western blot analysis of METTL6 expression in non-transfected: sc-117752 (A) and mouse METTL6 transfected: sc-121615 (B) 293T whole cell lysates.

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.