



## METTL6 (D-12): sc-100035

### 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

- Müller, S., Stanyon, R., Finelli, P., Archidiacono, N. and Wienberg, J. 2000. Molecular cytogenetic dissection of human chromosomes 3 and 21 evolution. *Proc. Natl. Acad. Sci. USA* 97: 206-211.
- Braga, E.A., Kashuba, V.I., Maliukova, A.V., Loginov, V.I., Senchenko, V.N., Bazov, I.V., Kiselev, L.L. and Zabarovskii, E.R. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. *Mol. Biol.* 37: 194-211.
- Muzny, D.M., Scherer, S.E., Kaul, R., Wang, J., Yu, J., Sudbrak, R., Buhay, C.J., Chen, R., Cree, A., Ding, Y., Dugan-Rocha, S., Gill, R., Gunaratne, P., Harris, R.A., Hawes, A.C., Hernandez, J., Hodgson, A.V., Hume, J., Jackson, A., Khan, Z.M., Kovar-Smith, C., Lewis, L.R., Lozado, R.J., et al. 2006. The DNA sequence, annotation and analysis of human chromosome 3. *Nature* 440: 1194-1198.
- Ruiz-Herrera, A. and Robinson, T.J. 2008. Evolutionary plasticity and cancer breakpoints in human chromosome 3. *Bioessays* 30: 1126-1137.
- Hublitz, P., Albert, M. and Peters, A.H. 2009. Mechanisms of transcriptional repression by histone lysine methylation. *Int. J. Dev. Biol.* 53: 335-354.
- Liutkeviciute, Z., Lukinavicius, G., Masevicius, V., Daujotyte, D. and Klimasauskas, S. 2009. Cytosine-5-methyltransferases add aldehydes to DNA. *Nat. Chem. Biol.* 5: 400-402.

### CHROMOSOMAL LOCATION

Genetic locus: METTL6 (human) mapping to 3p24.3; Mettl6 (mouse) mapping to 14 B.

### SOURCE

METTL6 (D-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of METTL6 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-100035 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

METTL6 (D-12) is recommended for detection of METTL6 of mouse, rat 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.

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.

### 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.

### 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.

### PROTOCOLS

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