

METT11D1 (G-16): sc-163081

BACKGROUND

METT11D1 (methyltransferase 11 domain-containing protein 1), also known as METTL17 (methyltransferase like 17), false p73 target gene protein or Protein RSM22 homolog, mitochondrial, is a 456 amino acid mitochondrial protein that belongs to the Rsm22 family and methyltransferase superfamily. Existing as three alternatively spliced isoforms, METT11D1 is thought to function as a component of the mitochondrial small ribosomal subunit. The gene encoding METT11D1 maps to human chromosome 14, which houses over 700 genes and comprises nearly 3.5% of the human genome. Chromosome 14 encodes the presenilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease (AD). The SERPINA1 gene is also located on chromosome 14 and, when defective, leads to the genetic disorder α 1-antitrypsin deficiency, which is characterized by severe lung complications and liver dysfunction.

REFERENCES

1. Coenen, M.J., et al. 2001. Mitochondrial oxidative phosphorylation system assembly in man: recent achievements. *Curr. Opin. Neurol.* 14: 777-781.
2. Saveanu, C., et al. 2001. Identification of 12 new yeast mitochondrial ribosomal proteins including 6 that have no prokaryotic homologues. *J. Biol. Chem.* 276: 15861-15867.
3. Avramopoulos, D., et al. 2005. Linkage to chromosome 14q in Alzheimer's disease (AD) patients without psychotic symptoms. *Am. J. Med. Genet. B Neuropsychiatr. Genet.* 132B: 9-13.
4. Larner, A.J., et al. 2009. Genotype-phenotype relationships of presenilin-1 mutations in Alzheimer's disease: an update. *J. Alzheimers Dis.* 17: 259-265.
5. Smits, P., et al. 2009. Sequence variants in four candidate genes (NIPSNAP1, GBAS, CHCHD1 and METT11D1) in patients with combined oxidative phosphorylation system deficiencies. *J. Inherit. Metab. Dis.* 32 Suppl 1: S349-S353.
6. Topic, A., et al. 2009. α 1-antitrypsin phenotypes in adult liver disease patients. *Ups. J. Med. Sci.* 114: 228-234.

CHROMOSOMAL LOCATION

Genetic locus: METTL17 (human) mapping to 14q11.2; Mettl17 (mouse) mapping to 14 C2.

SOURCE

METT11D1 (G-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of METT11D1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-163081 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-163081 X, 200 μ g/0.1 ml.

APPLICATIONS

METT11D1 (G-16) is recommended for detection of METT11D1 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).

METT11D1 (G-16) is also recommended for detection of METT11D1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for METT11D1 siRNA (h): sc-92322, METT11D1 siRNA (m): sc-149380, METT11D1 shRNA Plasmid (h): sc-92322-SH, METT11D1 shRNA Plasmid (m): sc-149380-SH, METT11D1 shRNA (h) Lentiviral Particles: sc-92322-V and METT11D1 shRNA (m) Lentiviral Particles: sc-149380-V.

METT11D1 (G-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of METT11D1 isoforms: 51/50/53 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 or our catalog for detailed protocols and support products.