SANTA CRUZ BIOTECHNOLOGY, INC.

MAP1D (D-14): sc-168545

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

MAP1D (methionyl aminopeptidase type 1D), also known as METAP1D, is a 335 amino acid mitochondrial protein that belongs to the peptidase M24A family. MAP1D is overexpressed in colon cancer cell lines, suggesting a role in tumorigenesis. MAP1D has also been found to remove methionine from the N-terminus of nascent proteins. MAP1D binds two cobalt ions per subunit and is encoded by a gene that maps to human chromosome 2q31.1. Human chromosome 2 consists of 237 million bases, encodes over 1,400 genes and makes up approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2 including Harlequin icthyosis, sitosterolemia and Alström syndrome.

REFERENCES

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2. Shulenin, S., et al. 2001. An ATP-binding cassette gene (ABCG5) from the ABCG (White) gene subfamily maps to human chromosome 2p21 in the region of the Sitosterolemia locus. Cytogenet. Cell Genet. 92: 204-208.
3. Hearn, T., et al. 2002. Mutation of ALMS1, a large gene with a tandem repeat encoding 47 amino acids, causes Alström syndrome. Nat. Genet. 31: 79-83.
4. Serero, A., et al. 2003. An unusual peptide deformylase features in the human mitochondrial N-terminal methionine excision pathway. J. Biol. Chem. 278: 52953-52963.
5. Kelsell, D.P., et al. 2005. Mutations in ABCA12 underlie the severe congenital skin disease harlequin ichthyosis. Am. J. Hum. Genet. 76: 794-803.
6. Leszczyniecka, M., et al. 2006. MAP1D, a novel methionine aminopeptidase family member is overexpressed in colon cancer. Oncogene 25: 3471-3478.
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CHROMOSOMAL LOCATION

Genetic locus: METAP1D (human) mapping to 2q31.1; Metap1d (mouse) mapping to 2 C2.

SOURCE

MAP1D (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MAP1D 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-168545 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MAP1D (D-14) is recommended for detection of MAP1D 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).

MAP1D (D-14) is also recommended for detection of MAP1D in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for MAP1D siRNA (h): sc-94562, MAP1D siRNA (m): sc-149256, MAP1D shRNA Plasmid (h): sc-94562-SH, MAP1D shRNA Plasmid (m): sc-149256-SH, MAP1D shRNA (h) Lentiviral Particles: sc-94562-V and MAP1D shRNA (m) Lentiviral Particles: sc-149256-V.

Molecular Weight of MAP1D: 37 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.