SANTA CRUZ BIOTECHNOLOGY, INC.

MAP1D (B-8): sc-515155

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

1. Zumsteg, U., et al. 2000. Alstrom syndrome: confirmation of linkage to chromosome 2p12-13 and phenotypic heterogeneity in three affected sibs. J. Med. Genet. 37: E8.
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.

CHROMOSOMAL LOCATION

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

SOURCE

MAP1D (B-8) is a mouse monoclonal antibody raised against amino acids 188-253 mapping within an internal region of MAP1D of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MAP1D (B-8) is available conjugated to agarose (sc-515155 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515155 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515155 PE), fluorescein (sc-515155 FITC), Alexa Fluor® 488 (sc-515155 AF488), Alexa Fluor® 546 (sc-515155 AF546), Alexa Fluor® 594 (sc-515155 AF594) or Alexa Fluor® 647 (sc-515155 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515155 AF680) or Alexa Fluor® 790 (sc-515155 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

MAP1D (B-8) is recommended for detection of MAP1D 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 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.

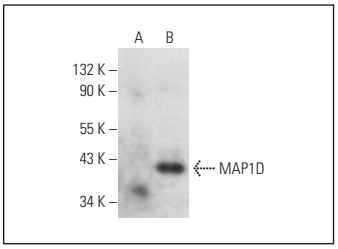
Molecular Weight of MAP1D: 37 kDa.

Positive Controls: MAP1D transfected HEK293T whole cell lysate.

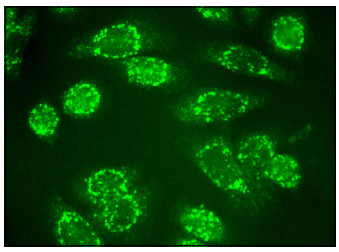
RECOMMENDED SUPPORT REAGENTS

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



MAP1D (B-8): sc-515155. Western blot analysis of MAP1D expression in non-transfected (**A**) and MAP1D transfected (**B**) HEK293T whole cell lysates.



MAP1D (B-8): sc-515155. Immunofluorescence staining of formalin-fixed SW480 cells showing mitochondrial localization.

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 for detailed protocols and support products.