

MetAP-2 (m): 293T Lysate: sc-121610

BACKGROUND

Methionine aminopeptidases (MetAP), also designated peptidase M proteins, are members of the M24 family of proteins. Both MetAP-1 and MetAP-2 release N-terminal amino acids, usually methionine, from nascent peptides and arylamines. Eukaryotes contain both MetAP-1 and MetAP-2, whereas prokaryotes possess only the MetAP-1 enzyme. MetAP-1 and MetAP-2 control cell proliferation in mammalian cells. MetAP-2 is highly conserved between human and *Saccharomyces cerevisiae*. Neurofibromin (NF1) regulates MetAP-2 and increased expression of MetAP-2 correlates with several forms of cancer. Inhibitors of MetAP-2 are potential targets in cancer therapeutics, particularly in NF1-associated tumor proliferation. Chemotherapeutic drugs such as ovalicin and fumagillin bind to the active site of and inhibit MetAP-2.

REFERENCES

1. Sin, N., et al. 1997. The aminopeptidase, MetAP-2. Proc. Natl. Acad. Sci. USA 94: 6099-6103.
2. Bernier, S.G., et al. 2005. Methionine aminopeptidases type I and type II are essential to control cell proliferation. J. Cell. Biochem. 95: 1191-1203.
3. Chun, E., et al. 2005. Novel inhibitors targeted to methionine aminopeptidase 2 (MetAP-2) strongly inhibit the growth of cancers in xenografted nude model. Int. J. Cancer 114: 124-130.
4. Kallander, L.S., et al. 2005. 4-aryl-1,2,3-triazole: a novel template for a reversible methionine aminopeptidase 2 inhibitor, optimized to inhibit angiogenesis *in vivo*. J. Med. Chem. 48: 5644-5647.
5. Morowitz, M.J., et al. 2005. Methionine aminopeptidase 2 inhibition is an effective treatment strategy for neuroblastoma in preclinical models. Clin. Cancer Res. 11: 2680-2685.
6. Zhang, H., et al. 2005. Investigations into microsporidian methionine aminopeptidase type 2: a therapeutic target for microsporidiosis. Folia Parasitol. 52: 182-192.
7. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 601870. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: Metap2 (mouse) mapping to 10 C2.

PRODUCT

MetAP-2 (m): 293T Lysate represents a lysate of mouse MetAP-2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

MetAP-2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive MetAP-2 antibodies. Recommended use: 10-20 µl per lane.

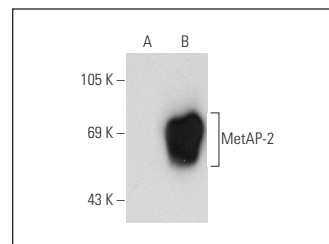
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

MetAP-2 (G-5): sc-166826 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse MetAP-2 expression in MetAP-2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

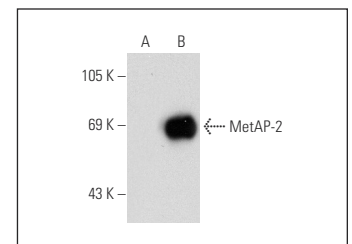
RECOMMENDED SUPPORT REAGENTS

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.

DATA



MetAP-2 (G-5): sc-166826. Western blot analysis of MetAP-2 expression in non-transfected: sc-117752 (A) and mouse MetAP-2 transfected: sc-121610 (B) 293T whole cell lysates.



MetAP-2 (B-8): sc-166827. Western blot analysis of MetAP-2 expression in non-transfected: sc-117752 (A) and mouse MetAP-2 transfected: sc-121610 (B) 293T whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.