

LAP3 (h): 293T Lysate: sc-117059

BACKGROUND

LAP3 (leucine aminopeptidase 3), also known as LAPEP or PEPS, is a 519 amino acid protein that localizes to the cytoplasm and belongs to the peptidase M17 family. Existing as a homohexamer, LAP3 uses zinc as a cofactor to catalyze the release of an N-terminal proline from a target peptide and is, therefore, involved in the processing and turnover of intracellular proteins. Multiple isoforms of LAP3 exist due to alternative splicing events. The gene encoding LAP3 maps to human chromosome 4, which houses nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes. Defects in some of the genes located on chromosome 4 are associated with Huntington's disease, Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

- Lewis, W.H. and Harris, H. 1967. Human red cell peptidases. *Nature* 215: 351-355.
- Shows, T.B., Brown, J.A., Eddy, R.L., Byers, M.G., Haley, L.L., Cooper, E.S. and Goggin, A.P. 1978. Assignment of peptidase S (PEPS) to chromosome 4 in man using somatic cell hybrids. *Hum. Genet.* 43: 119-125.
- Schmutz, S.M. and Simpson, N.E. 1983. Suggested assignment of peptidase S (PEPS) to 4p11-4q12 by exclusion using gene dosage, accounting for variability in fibroblasts. *Hum. Genet.* 64: 134-138.
- Kohno, H., Kanda, S. and Kanno, T. 1986. Immunoaffinity purification and characterization of leucine aminopeptidase from human liver. *J. Biol. Chem.* 261: 10744-10748.
- Matsushima, M., Takahashi, T., Ichinose, M., Miki, K., Kurokawa, K. and Takahashi, K. 1991. Structural and immunological evidence for the identity of prolyl aminopeptidase with leucyl aminopeptidase. *Biochem. Biophys. Res. Commun.* 178: 1459-1464.
- Kim, H. and Lipscomb, W.N. 1993. Differentiation and identification of the two catalytic metal binding sites in bovine lens leucine aminopeptidase by x-ray crystallography. *Proc. Natl. Acad. Sci. USA* 90: 5006-5010.

CHROMOSOMAL LOCATION

Genetic locus: LAP3 (human) mapping to 4p15.32.

PRODUCT

LAP3 (h): 293T Lysate represents a lysate of human LAP3 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

LAP3 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive LAP3 antibodies. Recommended use: 10-20 µl per lane.

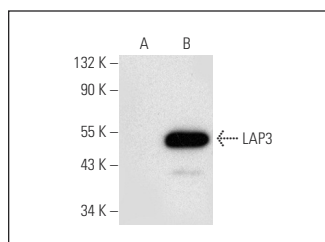
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

LAP3 (E-9): sc-398601 is recommended as a positive control antibody for Western Blot analysis of enhanced human LAP3 expression in LAP3 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



LAP3 (E-9): sc-398601. Western blot analysis of LAP3 expression in non-transfected: sc-117752 (A) and human LAP3 transfected: sc-117059 (B) 293T whole cell lysates.

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.

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.