NPL (m): 293T Lysate: sc-122110



The Power to Question

BACKGROUND

NPL (N-acetylneuraminate pyruvate lyase (dihydrodipicolinate synthase)), also known as N-acetylneuraminic acid aldolase, N-acetylneuraminate lyase (NALase), sialic acid lyase, c112, NPL1 or DHDPS1, is a 320 amino acid cytoplasmic protein that belongs to the DHDPS family and NanA subfamily. Involved in the degradation of N-acetylneuraminate and the metabolism of amino-sugars, NPL catalyzes N-acetylneuraminic acid cleavage via a a Schiff base intermediate, forming N-acetylmannosamine and pyruvate. Able to form five alternatively spliced isoforms, NPL isoform 2 has been observed in pancreas, spleen, thymus, small intestine, peripheral blood leukocytes, placenta, liver and kidney. NPL also forms a homotetramer and is encoded by a gene located on human chromosome 1.

REFERENCES

- Traving, C., Bruse, P., Wächter, A. and Schauer, R. 2001. The sialatepyruvate lyase from pig kidney. Elucidation of the primary structure and expression of recombinant enzyme activity. Eur. J. Biochem. 268: 6473-6486.
- 2. Sood, R., Bonner, T.I., Makalowska, I., Stephan, D.A., Robbins, C.M., Connors, T.D., Morgenbesser, S.D., Su, K., Faruque, M.U., Pinkett, H., Graham, C., Baxevanis, A.D., Klinger, K.W., Landes, G.M., et al. 2001. Cloning and characterization of 13 novel transcripts and the human RGS8 gene from the 1q25 region encompassing the hereditary prostate cancer (HPC1) locus. Genomics 73: 211-222.
- 3. Tanner, M.E. 2005. The enzymes of sialic acid biosynthesis. Bioorg. Chem. 33: 216-228.
- 4. Wu, M., Gu, S., Xu, J., Zou, X., Zheng, H., Jin, Z., Xie, Y., Ji, C. and Mao, Y. 2005. A novel splice variant of human gene NPL, mainly expressed in human liver, kidney and peripheral blood leukocyte. DNA Seq. 16: 137-142.
- Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611412. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Chu, H.Y., Zheng, O.C., Zhao, Y.S. and Zhang, H.X. 2009. Homology modeling and molecular dynamics study on N-acetylneuraminate lyase. J. Mol. Model. 15: 323-328.

CHROMOSOMAL LOCATION

Genetic locus: Npl (mouse) mapping to 1 G3.

PRODUCT

NPL (m): 293T Lysate represents a lysate of mouse NPL transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

NPL (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive NPL 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.

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.

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