SANTA CRUZ BIOTECHNOLOGY, INC.

AASDHPPT (h): 293T Lysate: sc-159704



The Power to Question

BACKGROUND

AASDHPPT (aminoadipate-semialdehyde dehydrogenase-phosphopantetheinyl transferase), also known as LYS2, LYS5 or CGI-80, is a 309 amino acid protein that localizes to the cytoplasm and belongs to the P-Pant transferase superfamily. Expressed in testis, liver, kidney, heart, brain, placenta and skeletal muscle, AASDHPPT exists as a monomer that functions to catalyze the phosphopantetheine-dependent post-translational modification of target proteins, effectively transferring a 4'-phosphopantetheine moiety from coenzyme A (CoA) to a serine residue of an acceptor protein. AASDHPPT is subject to DNA damage-dependent phosphorylation, probably by ATM or ATR. The gene encoding AASDHPPT maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome.

REFERENCES

- Zhang, Q.H., Ye, M., Wu, X.Y., Ren, S.X., Zhao, M., Zhao, C.J., Fu, G., Shen, Y., Fan, H.Y., Lu, G., Zhong, M., Xu, X.R., Han, Z.G., Zhang, J.W., Tao, J., Huang, Q.H., Zhou, J., Hu, G.X., Gu, J., Chen, S.J. and Chen, Z. 2000. Cloning and functional analysis of cDNAs with open reading frames for 300 previously undefined genes expressed in CD34+ hematopoietic stem/progenitor cells. Genome Res. 10: 1546-1560.
- 2. Lai, C.H., Chou, C.Y., Chang, L.Y., Liu, C.S. and Lin, W. 2000. Identification of novel human genes evolutionarily conserved in *Caenorhabditis elegans* by comparative proteomics. Genome Res. 10: 703-713.
- Praphanphoj, V., Sacksteder, K.A., Gould, S.J., Thomas, G.H. and Geraghty, M.T. 2001. Identification of the α-aminoadipic semialdehyde dehydrogenase-phosphopantetheinyl transferase gene, the human ortholog of the yeast LYS5 gene. Mol. Genet. Metab. 72: 336-342.
- 4. Joshi, A.K., Zhang, L., Rangan, V.S. and Smith, S. 2003. Cloning, expression, and characterization of a human 4'-phosphopantetheinyl transferase with broad substrate specificity. J. Biol. Chem. 278: 33142-33149.
- Kasahara, T. and Kato, T. 2003. Nutritional biochemistry: A new redoxcofactor vitamin for mammals. Nature 422: 832.
- 6. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 607756. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 7. Gunawardana, C.G., Memari, N. and Diamandis, E.P. 2009. Identifying novel autoantibody signatures in ovarian cancer using high-density protein microarrays. Clin. Biochem. 42: 426-429.

CHROMOSOMAL LOCATION

Genetic locus: AASDHPPT (human) mapping to 11g22.3.

PRODUCT

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

RESEARCH USE

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

APPLICATIONS

AASDHPPT (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive AASDHPPT antibodies. Recommended use: $10\text{-}20~\mu l$ 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.

PROTOCOLS

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

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com