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Produktinformation

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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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SANTA CRUZ BIOTECHNOLOGY, INC.

SLA/LP (m): 293T Lysate: sc-123571

BACKGROUND

The fidelity of protein synthesis requires efficient discrimination of amino acid substrates by aminoacyl-tRNA synthetases. Aminoacyl-tRNA synthetases function to catalyze the aminoacylation of tRNAs by their corresponding amino acids, thus linking amino acids with tRNA-contained nucleotide triplets. SLA/LP (soluble liver antigen/liver-pancreas antigen), also known as SEPSECS (Sep (O-phosphoserine) tRNA:Sec (selenocysteine) tRNA synthase) or SLA-p35, is a 501 amino acid cytoplasmic protein that belongs to a diverse family of pyridoxal phosphate-dependent enzymes. Expressed predominantly in liver, lung, kidney and pancreas, SLA/LP plays a role in aminoacyl-tRNA synthesis and, more specifically, selenoprotein biosynthesis. Using PLP as a cofactor, SLA/LP specifically converts O-phosphoseryl-tRNA(Sec) to Sec-tRNA(Sec) by exchanging the phosphate group for a selenol moiety. Due to alternative splicing events, two SLA/LP isoforms exist.

REFERENCES

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2. Volkmann, M., et al 2001. Soluble liver antigen: isolation of a 35 kDa recombinant protein (SLA-p35) specifically recognizing sera from patients with autoimmune hepatitis. Hepatology 33: 591-596.
3. Xu, X.M., et al. 2005. Evidence for direct roles of two additional factors, SECp43 and soluble liver antigen, in the selenoprotein synthesis machinery. J. Biol. Chem. 280: 41568-41575.
4. Yuan, J., et al. 2006. RNA-dependent conversion of phosphoserine forms selenocysteine in eukaryotes and archaea. Proc. Natl. Acad. Sci. USA 103: 18923-18927.
5. Xu, X.M., et al. 2007. Biosynthesis of selenocysteine on its tRNA in eukaryotes. PLoS Biol. 5: e4.
6. Hauenstein, S.I. and Perona, J.J. 2008. Redundant synthesis of cysteinyl-tRNACys in *Methanosarcina mazei*. J. Biol. Chem.
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8. Sherrer, R.L., et al. 2008. Characterization and evolutionary history of an archaeal kinase involved in selenocysteinyl-tRNA formation. Nucleic Acids Res. 36: 1247-1259.
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CHROMOSOMAL LOCATION

Genetic locus: Sepsecs (mouse) mapping to 5 C1.

PRODUCT

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

APPLICATIONS

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