

LysRS (h2): 293T Lysate: sc-170764

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. LysRS (lysyl-tRNA synthetase), also known as KARS, KRS or KARS2, exists as both mitochondrial and cytoplasmic isoforms (625 and 576 amino acids, respectively) that belong to the tRNA synthetase family and are thought to play a role in autoimmune diseases, such as polymyositis or dermatomyositis. The gene encoding LysRS maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome.

REFERENCES

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3. Tolkunova, E., et al. 2000. The human lysyl-tRNA synthetase gene encodes both the cytoplasmic and mitochondrial enzymes by means of an unusual alternative splicing of the primary transcript. *J. Biol. Chem.* 275: 35063-35069.
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CHROMOSOMAL LOCATION

Genetic locus: KARS (human) mapping to 16q23.1.

PRODUCT

LysRS (h2): 293T Lysate represents a lysate of human LysRS 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 or our catalog for detailed protocols and support products.

APPLICATIONS

LysRS (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive LysRS 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.

RESEARCH USE

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