

# AspRS (H-300): sc-98541

## BACKGROUND

AspRS (mitochondrial aspartyl-tRNA synthetase), also known as aspartate-tRNA ligase or DARS2, is a 645 amino acid protein that belongs to the class-II aminoacyl-tRNA synthetase family. Localized to the mitochondrial matrix, AspRS exists as a homodimer and functions, primarily, to aminoacylate tRNA. Also, AspRS contains a 47 amino acid mitochondrial targeting signal, as well as several conserved residues involved in ATP binding, tRNA binding and aspartic acid recognition. The gene encoding AspRS maps to chromosome 1q25.1. Defects in this gene are a cause of leukoencephalopathy with brain stem and spinal cord involvement and lactate elevation (LBSL). LBSL is an autosomal recessive disease characterized by cerebellar ataxia, spasticity and dorsal column dysfunction, sometimes with a mild cognitive deficit.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: DARS2 (human) mapping to 1q25.1; Dars2 (mouse) mapping to 1 H2.1.

## SOURCE

AspRS (H-300) is a rabbit polyclonal antibody raised against amino acids 346-645 mapping at the C-terminus of AspRS of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

AspRS (H-300) is recommended for detection of AspRS of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

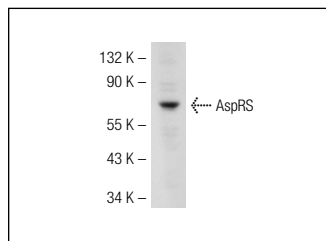
AspRS (H-300) is also recommended for detection of AspRS in additional species, including equine and bovine.

Suitable for use as control antibody for AspRS siRNA (h): sc-72570, AspRS siRNA (m): sc-72571, AspRS shRNA Plasmid (h): sc-72570-SH, AspRS shRNA Plasmid (m): sc-72571-SH, AspRS shRNA (h) Lentiviral Particles: sc-72570-V and AspRS shRNA (m) Lentiviral Particles: sc-72571-V.

Molecular Weight of AspRS: 66 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

## DATA



AspRS (H-300): sc-98541. Western blot analysis of AspRS expression in K-562 whole cell lysate.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **AspRS (C-6): sc-166535** or **AspRS (D-4): sc-166534**, our highly recommended monoclonal alternatives to AspRS (H-300).