

HisRS (m): 293T Lysate: sc-120790

BACKGROUND

Histidyl-tRNA synthetase (HisRS, Jo-1) is an aminoacyl-tRNA synthetase that charges transfer RNAs (tRNAs) with a cognate histidine residue to produce histidyl-tRNA. Histidyl-tRNA is essential for the incorporation of histidine into proteins. Systemic autoimmune diseases lead to aminoacyl-tRNA synthetase autoantibodies that are directed against self structures. HisRS is an antigen in systemic autoimmune diseases such as rheumatic arthritis or polymyositis with associated interstitial lung disease, thrombocytopenia and Raynaud's phenomenon (vasospastic attacks that cause blood vessels to constrict). HisRS autoantibodies are unlike anti-synthetase antibodies because they bind the nonlinear, exposed epitopes on native HisRS when the enzyme is complexed to tRNA(His).

REFERENCES

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2. Freist, W., Verhey, J.F., Ruhlmann, A., Gauss, D.H. and Arnez, J.G. 1999. Histidyl-tRNA synthetase. *Biol. Chem.* 380: 623-646.
3. Baron, F., Ribbens, C., Kaye, O., Fillet, G., Malaise, M. and Beguin, Y. 2000. Effective treatment of Jo-1-associated polymyositis with T-cell-depleted autologous peripheral blood stem cell transplantation. *Br. J. Haematol.* 110: 339-342.
4. Online Mendelian Inheritance in Man, OMIM[™]. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 227400. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. LocusLink Report (LocusID: 2243). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: Hars (mouse) mapping to 18 B3.

PRODUCT

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

APPLICATIONS

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

HisRS (HARSA6): sc-81287 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse HisRS expression in HisRS transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

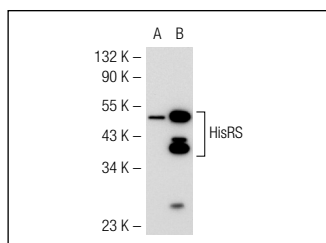
STORAGE

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.

DATA



HisRS (HARSA6): sc-81287. Western blot analysis of HisRS expression in non-transfected: sc-117752 (A) and mouse HisRS transfected: sc-120790 (B) 293T whole cell lysates.

PROTOCOLS

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