



Product Datasheet

Product Name	LA / SS-B Human Recombinant
Cata No	CB500948
Source	<i>Escherichia Coli.</i>
Synonyms	Lupus La protein, Sjogren syndrome type B antigen, SS-B, La ribonucleoprotein, La autoantigen, SSB, La, LARP3, LA/SS-B, La(SS-B).

Description

The La protein is a 47 kDa polypeptide that frequently acts as an autoantigen in systemic lupus erythematosus and Sjogren's syndrome patients. La is involved in various aspects of RNA metabolism, including binding and protecting 3-prime UUU(OH) elements of newly RNA polymerase III - transcribed RNA, processing 5-prime and 3-prime ends of pre-tRNA precursors, acting as an RNA chaperone, and binding viral RNAs linked to hepatitis C virus. It occurs in both the nucleus and the cytoplasm, where it assumes different roles. In the nucleus, La protein facilitates the production of tRNAs, acting as an RNA polymerase III (RNAP III) transcription factor by attaching to the U-rich 3'UTR of nascent transcripts, aiding in their folding and maturation. In the cytoplasm, La protein facilitates the translation of specific mRNAs, acting as a translation factor. As an RNA binding protein (RBP), La protein associates with subsets of mRNAs which contain a 5'-terminal oligopyrimidine (5'TOP) motif known to direct protein synthesis. The binding of La protein to particular classes of RNA molecules regulates their downstream processing, guards them from endonuclease digestion, and organizes their export from the nucleus. La/SS-B appears to be readily disposed to proteolysis, which results in many smaller (42kD, 320, and 270) nevertheless still immunoreactive polypeptides. La/SS-B antigen is

strongly conserved across species. Anti-La/SS-B autoantibodies were originally found as precipitating autoantibodies in sera of Sjogren's Syndrome patients and referred to as SjT. Anti-La/SS-B precipitins are most frequently found in Sjogren's Syndrome, Systemic Lupus Erythematosus (SLE) and Subacute Cutaneous Lupus. Also, there seems to be a correlation between anti-La/SS-B and the absence of nephritis in SLE patients.

LA/SS-B Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain having a molecular mass of 47.6 kDa.

The LA/SS-B is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered clear solution.

Formulation

The protein solution contains 10mM Sodium Phosphate, 150mM NaCl and 0.1% NaN₃ (pH: 7.2).

Stability

LA/SS-B although stable at 4°C for 3 weeks, should be stored desiccated below -18°C.

Please prevent freeze-thaw cycles.

Purity

Greater than 90.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

Protein content

Protein quantitation was carried out by using 0.25 - 2.0 mg/ml Bradford assay vs. BSA.

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