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## Product Data Sheet

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Product Name: LA/SS-B Human, Biotin

Cat. No.: GP23786

Batch No.: 1

### Product Data

Purity	>98%	Source	Sf9 insect cells.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Lupus La protein; Sjogren syndrome type B antigen; SS-B; La ribonucleoprotein; La autoantigen; SSB; La; LARP3; LA/SS-B; La(SS-B).		
Formulation	The protein solution contains 20mM HEPES, pH 7.5, 400mM NaCl, 20% Glycerol.		

### Introduction

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,

**Caution: Product has not been fully validated for medical applications. For research use only.**

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there seems to be a correlation between anti-La/SS-B and the absence of nephritis in SLE patients.

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Avoid multiple freeze-thaw cycles.

### Background

LA/SS-B Human Recombinant produced in SF9 is a single, glycosylated, polypeptide chain having a calculated molecular mass of 48 kDa. The LA/SS-B is expressed with a -6x His tag at N-terminus and purified by proprietary chromatographic techniques.

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