

Product Specification Sheet

**Anti-Human SSA-52/Ro (52 kda) protein and controls**

<b>Cat. # SSA521-S</b>	Rabbit Anti-Human SSA-50/Ro (52 kda) protein antiserum	<b>Size:</b> 100 ul
<b>Cat. # SSA521-C</b>	Recombinant human SSA-52/Ro protein control for WB	<b>Size:</b> 100 ul

The Ro/SS-A antigen is a ribonucleoprotein complex and consists of two major proteins of 52 and 60 kDa, complexed with one specific RNA chain (either hY1, hY2, hY3 or hY5, which all are transcripts of RNA polymerase III); the Ro/SS-A (60 kDa) protein is the RNA-binding protein in the complex. The cellular function of this complex is still unresolved, as is the question whether the antigen is primarily located in the cytoplasm or in the nucleus or even shuttles between the 2 compartments. The Ro complex has recently been implicated in small RNA quality control and the enhancement of cell survival following exposure to ultraviolet irradiation.

Ro/SS-A antibodies occur with a prevalence of 60-90% in Sjögren syndrome patients, but also with a prevalence of 25-50% in SLE patients and higher prevalences in subacute cutaneous LE patients. Neonatal lupus syndrome (congenital heart block, photosensitivity, skin lesions) is also associated with the presence of Ro/SS-A autoantibodies in the maternal and neonatal sera, in particular when these autoantibodies are directed to the 52-kDa antigen. There is a high risk of neonatal lupus if the mother is positive for Ro/SS-A (52 kDa) and La/SS-B antibodies. It should be noted that preparation of native Ro complexes from natural sources often contain substoichiometric and variable amounts of Ro/SS-A (52 kDa) protein, whereas recombinant Ro/SS-A (52 kDa) antigen is pure protein free of other proteins..

**Protein name** 52 kDa Ro protein

**Synonyms** Sjogren syndrome type A antigen, SS-A, Ro(SS-A), 52 kDa ribonucleoprotein autoantigen Ro/SS-A, Tripartite motif-containing protein 21, RING finger protein 81, RNF81, RO52, SSA1 **Gene name** : TRIM21

**Source of Antigen and Antibodies**

<b>Antigen</b>	Human purified recombinant Ro-SS-A (475 aa, 52-54 Kda) protein (protein accession # P19474)
<b>Ab Host/type</b>	Rabbit, Polyclonal antiserum ( <b>cat # SSA521-S</b> )
<b>2-ab</b>	<b>Goat Anti-rabbit IgG-HRP</b> cat # 20320 (AP, biotin, FITC conjugates also available)
<b>-ve control IgG</b>	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

**Cat # SSA521-C**

Human Ro/SS-A (52 kda protein) was expressed in Sf9 cells and his-tag proteins and purified (>95%). For Western blot +ve control (**Cat # SSA521-C**) is supplied in SDS-PAGE sample buffer (reduced). Load 10 ul/lane of

**SSA521-C** for good visibility with rabbit antibody Cat # **SSA521-S**. Store at -20oC in suitable size aliquots. SDS may crystallize in cold conditions. It should redissolve by warming before taking it from the stock. It should be heated once prior to loading on gels. If the product has been stored for several weeks, then it may be preferable to add 5 ul of fresh 2x sample buffer per 10 ul of the **SSA521-C** solution prior to heating and loading on gels. This preparation is not biologically active. It is not suitable for ELISA or other applications where native protein is required. Do not freeze, thaw, or heat repeatedly

**Form & Storage of Antibodies/Peptide Control**

**Unpurified antiserum**

solution lyophilized powder contains 0.05% azide  
**Reconstitute powder** in 100 ul PBS

**Storage**

**Short-term:** unopened, undiluted vials for less than a week at 4oC.

**Long-term:** at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability:** 6-12 months at -20oC or below.

**Shipping:** 4oC for solutions and room temp for powder.

**Recommended Usage**

**Western Blotting** (1:500-1:5K using ECL technique).

**ELISA:** Control antigen can be used to coat ELISA plates at 1 ug/ml and detected with antibodies (0.5-1 ug/ml for affinity pure).

**Histochemistry & Immunofluorescence:** Not tested. We recommend the use of 1;200:-1k diluted antiserum.

**Specificity & Cross-reactivity**

Anti-SS-A/Ro antiserum reacts with human SS-A.Ro (52 Kda) with minimal reaction with other autoantigens. Antibody cross-reactivity in various species has not been studied. Recombinant purified human Ro/SS-A 52 Kda protein (#SSA521-C) is available as a control for Western.

**General References:** Itoh K (1991) J. Clin Invest. 87, 177-186; Chan EK (1991) J. Clin Invest. 87, 68-76; Tsugu H (1994) genomics 24, 541-548; Keech CL (1996) Clin Exp Immunol. 104, 255-263;

\*This product is for In vitro research use only.

**Related material available from ADI**

SS-A and SS-B, Scl70, recombinant proteins and antibodies  
SSA521-S-C 80312A