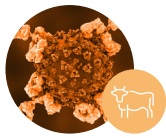


Product datasheet



ATRO2 Ro(SSA) Native Antigen

Product name	Ro(SSA) antigen
Description	Purified native protein
Source material	Calf thymus
Purity	>90% pure (by SDS-PAGE)

Antigen overview

Autoantibodies to the Ro(SSA) antigen are one of the most frequent serological markers of autoimmunity in rheumatic diseases. They are present in the serum of 70-100% of patients with Sjögren's syndrome (SS), 40-90% of patients with systemic lupus erythematosus (SLE), and 3-15% of patients with rheumatoid arthritis (RA)¹.

Ro(SSA) autoantibodies have also been reported to be present in subacute cutaneous lupus erythematosus, neonatal lupus syndrome, polymyositis, dermatomyositis, systemic sclerosis and primary biliary cirrhosis¹.

The incidence of anti-Ro(SSA) antibodies in the population of normal women of reproductive age is in the order of 1%². The presence of anti-La(SSB) autoantibodies usually coincides with the presence of anti-Ro(SSA)¹.

There is also a second anti-Ro autoantibody system, against a 52kDa antigen (Ro52). This is an immunologically independent autoimmune system, though anti-Ro52 antibodies can be present

along with anti-Ro(SSA) antibodies in systemic autoimmune diseases¹.

Ro(SSA) antibodies target a 60 kDa protein (Ro60) that is associated with small non-coding RNAs molecules known as hY-RNAs. It has been reported that the Ro60 protein may act as part of a quality checking system for misfolded or defective RNA¹.

The Ro60 protein represents the primary component of AROTEC's Ro(SSA) antigen. The antigen typically exhibits a 260nm/280nm absorbance ratio of >1.3, indicating that the hY-RNA component is present. The binding of autoantibodies to Ro60 is mostly conformational. Many Ro(SSA) antibodies lose their binding activity when presented with a denatured protein¹.

The known human Ro60 antigen amino acid sequences have a very high degree of homology to the bovine sequence (>90%), indicating that Ro(SSA) is highly conserved between mammalian species. The use of bovine antigen for the detection of anti-Ro(SSA) antibodies has been described elsewhere³⁻⁵.

Storage conditions & handling

- Store at -65°C or below
- Avoid repeated freezing and thawing
- Storage buffer contains 20% Glycerol as cryoprotectant
- Mix before use and keep on ice

Ordering information

ATRO2-02 - Ro(SSA) antigen (native) - 0.20 mg

ATRO2-10 - Ro(SSA) antigen (native) - 1.0 mg

Custom pack sizes available on request

Applications

Reactive in Western Blot and ELISA with anti-Ro(SSA) antibodies or anti-Ro(SSA) positive patient serum

Product profile

Fig 1 AROTEC Ro(SSA) Antigen Titration

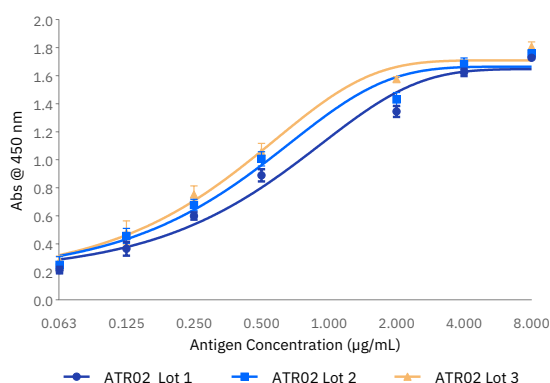


Fig 2

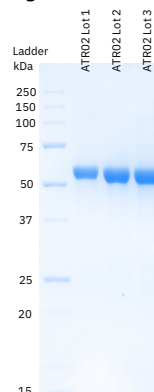


Fig 3

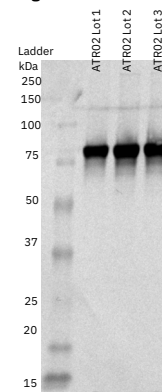


Fig.1. ELISA titration assay of ATR02 Ro(SSA) antigen using patient serum (1:200 dilution)

Fig.2. SDS-PAGE of ATR02 Ro(SSA) antigen; All lanes loaded with 1 µg protein concentration

Fig.3. Western Blot of ATR02 Ro(SSA) antigen with positive patient serum (1:300 dilution)

References

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