

Product Specification Sheet

Anti-Human Scl70 protein and controls

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| <input type="checkbox"/> Cat. # SCL701-M | Monoclonal Anti-Human Scl-70 IgG | Size: 100 ul |
| <input type="checkbox"/> Cat. # SCL701-C | Recombinant Human Scl70 protein control for WB | Size: 100 ul |

The Scl-70 or DNA topoisomerase I antigen is an abundant nuclear protein. In human tissues the DNA topoisomerase I is initially synthesized as a protein with a molecular weight of 100 kDa. Most of this precursor is then proteolytically processed to a 70-kDa size, from which the Scl-70 antigen has derived its name.

Anti-Scl-70 antibodies were originally described as precipitating autoantibodies in sera of patients with a connective tissue disease. It was later realized that some patients with diffuse scleroderma characteristically have a high incidence of this autoantibody. The presence of autoantibodies against the Scl-70 antigen has been reported to have prognostic value in the diagnosis of diffuse scleroderma, also termed Progressive Systemic Sclerosis. It has also been reported that autoantibodies to Scl-70 are a specific serologic marker for Systemic Sclerosis, and present in high proportions of Acrosclerosis. Anti-Scl-70 is not usually present in other autoimmune rheumatic diseases unless some cutaneous symptoms of scleroderma are present.

Source of Antigen and Antibodies

Antigen	Human Scl70 is expressed in sf9 and purified (>95%). Human Scl70 (#P111387.2, 765-aa)
Ab Host/type	Mouse, monoclonal IgG1 (cat # SCL701-M)
2-ab	Goat Anti-mouse IgG-HRP conjugate Cat # 40320 (AP, biotin, FITC conjugates also available)
-ve control IgG	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

Cat # SCL701-C

Human Scl70 is expressed in sf9 and purified (>95%). For Western blot +ve control (Cat # SCL701-C) is supplied in SDS-PAGE sample buffer (reduced). Load 10 ul/lane of SCL701-C for good visibility with rabbit antibody Cat # SCL701-M. 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 **#SCL701-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 antibody

- 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

Human Scl70 shows high conservation: Bovine (99%), mouse, rat, sheep, cat, and monkey (97%). Anti-Scl70 antibody reacts with human Scl70 protein. Antibody cross-reactivity in various species has not been studied. Recombinant purified human Scl70 (#SCL701-C) is available as a control for Western.

General References: 1. Maul GG, PNAS 83: 1986, 5145-5149; Douvas AS, J Biol Chem 1989, 10514-10522; Shero JH, Science 231: 1986, 737-740; Jarzabek-Chorzelska M, British J of Dermatology 1986, 393-401.

*This product is for In vitro research use only.

Related material available from ADI

SS-A and SS-B, Scl70, recombinant proteins and antibodies
Anti-Scl70 antibodies and proteins
Mouse anti-Scl70 ELISA kits, Anti-DNA, ANA ELISA kits

SCL701-M-C

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