



SCL-70

Human, Recombinant
Expressed in *E. coli*

Product Number **S7064**

Storage Temperature $-20\text{ }^{\circ}\text{C}$

Product Description

Scl-70 is produced from a cDNA sequence encoding human Scl-70, a 70 kDa metabolite of topoisomerase I. It is expressed in *E. coli*. This antigen is intended for use in immunological assays and has been tested for reactivity by western blot. The antigen reacts strongly with human scleroderma antiserum.

Scl-70 is an autoimmune antigen used to detect progressive systemic sclerosis (PSS). In 1986, three laboratories reported that Scl-70 is a product of the proteolytic degradation of DNA topoisomerase I, a 95 kDa enzyme that is abundant in all cell nuclei. Two forms of PSS have been described, diffuse scleroderma and limited scleroderma. Scl-70 reacts only with autoantibodies of diffuse scleroderma. Occasionally, autoantibodies of SLE (systemic lupus erythematosus) and MCTD (mixed connective tissue disease) also crossreact with this antigen.

Reagent

Recombinant human Scl-70 is supplied as a solution in 10 mM tris HCl buffer, pH 8.0, containing 6 M urea and 500 mM NaCl. Optimal dilutions should be determined by each laboratory for each application.

Precautions and Disclaimer

For research use only. Not suitable for clinical diagnostic use.

Product Information

Storage/Stability

Recombinant human Scl-70 should be stored at $-20\text{ }^{\circ}\text{C}$. Avoid repeated freeze-thaw cycles. Do not store in a frost-free freezer.

Reference

1. Henry, P.A., et al., Diversity and plasticity of the anti-DNA topoisomerase autoantibody response in scleroderma. *Arthritis Rheum.*, **43**, 2733-2742 (2000).
2. Gussin, H.A., Anti-topoisomerase I (anti-Scl-70) antibodies in patients with systemic lupus erythematosus. *Arthritis Rheum.*, **44**, 376-383 (2001).
3. Shero, J.H., et al., High titers of autoantibodies to topoisomerase I (Scl-70) in sera from scleroderma patients. *Science*, **231**, 737-740 (1986).
4. Guldner, H.H., et al., Scl-70 autoantibodies from scleroderma patients recognize a 95 kDa protein identified as DNA topoisomerase I. *Chromosoma*, **94**, 132-138 (1986).
5. Maul, G.G., et al., Topoisomerase I identified by scleroderma 70 antisera: enrichment of topoisomerase I at the centromere in mouse mitotic cells before anaphase. *Proc. Natl. Acad. Sci. USA*, **83**, 5145-5149 (1986).

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