

## SLPI (L-16): sc-10537

### BACKGROUND

SLPI, secretory leukocyte protease inhibitor, is a 12 kDa enzyme that belongs to the  $\alpha$ -1 antitrypsin antiprotein family. Produced by epithelial cells, SLPI resides in parotid secretions, bronchial, nasal and cervical mucus, and seminal fluid. SLPI plays a primary role in the regulation of neutrophil-mediated inflammation. It does so through proteolysis and subsequent inhibition of the leukocyte serine proteases, including the neutrophil and pancreatic proteases. The promoter region of SLPI has been identified as binding site for IRF-1, interferon regulatory factor. Expression of SLPI is inhibited by IRF-1 co-expression, identifying SLPI as a target of IRF-1 regulation. SLPI also functions as a macrophage derived inhibitor of macrophage response to LPS by inhibiting the production of nitric oxide, which suggests the role of SLPI in LPS tolerance.

### REFERENCES

1. Thompson, R.C. and Ohlsson, K. 1986. Isolation, properties, and complete amino acid sequence of human secretory leukocyte inhibitor, a potent inhibitor of leukocyte elastase. *Proc. Natl. Acad. Sci. USA* 83: 6692-6696.
2. Nathan, C.F. and Hibbs, J.B. Jr. 1991. Role of nitric oxide synthesis in macrophage antimicrobial activity. *Curr. Opin. Immunol.* 3: 65-70.
3. Lee, C.H., et al. 1993. Distribution of secretory leukoprotease inhibitor in the human nasal airway. *Am. Rev. Respir. Dis.* 147: 710-716.
4. Jin, F.Y., et al. 1997. Secretory leukocyte protease inhibitor: a macrophage product induced by and antagonistic to bacterial lipopolysaccharide. *Cell* 88: 417-426.

### CHROMOSOMAL LOCATION

Genetic locus: *Sspi* (mouse) mapping to 2 H3.

### SOURCE

SLPI (L-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of SLPI of mouse origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-10537 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

### APPLICATIONS

SLPI (L-16) is recommended for detection of SLPI of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SLPI siRNA (m): sc-42978, SLPI shRNA Plasmid (m): sc-42978-SH and SLPI shRNA (m) Lentiviral Particles: sc-42978-V.

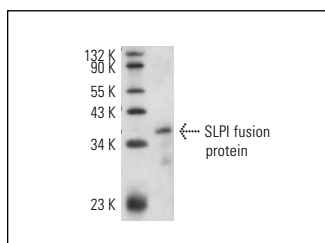
Molecular Weight of SLPI: 12 kDa.

Positive Controls: mouse lung extract: sc-2390.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### DATA



SLPI (L-16): sc-10537. Western blot analysis of mouse recombinant SLPI fusion protein.

### SELECT PRODUCT CITATIONS

1. Tsuji, M., et al. 2009. Histochemical localization of neutral proteases released during development of rat periradicular lesion. *Arch. Oral Biol.* 54: 1128-1135.

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Try **SLPI (A-11): sc-374575** or **SLPI (F-12): sc-373802**, our highly recommended monoclonal alternatives to SLPI (L-16).