

SLPI (H-88): sc-28802

BACKGROUND

SLPI, secretory leukocyte protease inhibitor, is an enzyme that belongs to the α -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., et al. 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., et al. 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.
5. Nguyen, H., et al. 1999. Identification of the secretory leukocyte protease inhibitor (SLPI) as a target of IRF-1 regulation. *Oncogene* 18: 5455-5463.

CHROMOSOMAL LOCATION

Genetic locus: SLPI (human) mapping to 20q13.12; Sipi (mouse) mapping to 2 H3.

SOURCE

SLPI (H-88) is a rabbit polyclonal antibody raised against amino acids 13-100 mapping within an internal region of SLPI of human origin.

PRODUCT

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

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 or our catalog for detailed protocols and support products.

APPLICATIONS

SLPI (H-88) is recommended for detection of precursor and mature forms of SLPI of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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 (h): sc-42977, SLPI siRNA (m): sc-42978, SLPI shRNA Plasmid (h): sc-42977-SH, SLPI shRNA Plasmid (m): sc-42978-SH, SLPI shRNA (h) Lentiviral Particles: sc-42977-V and SLPI shRNA (m) Lentiviral Particles: sc-42978-V.

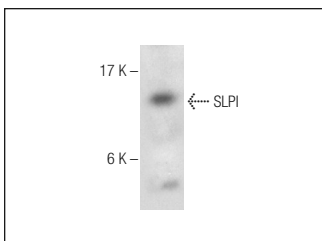
Molecular Weight of SLPI: 12 kDa.

Positive Controls: A549 cell lysate: sc-2413.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



SLPI (H-88): sc-28802. Western blot analysis of SLPI expression in rat small intestine tissue extract.

SELECT PRODUCT CITATIONS

1. Luo, B.L., et al. 2008. Downregulation of secretory leukocyte proteinase inhibitor in chronic obstructive lung disease: the role of TGF- β /Smads signaling pathways. *Arch. Med. Res.* 39: 388-396.



Try **SLPI (A-11): sc-374575** or **SLPI (F-12): sc-373802**, our highly recommended monoclonal alternatives to SLPI (H-88).