

SLPI (V-17): sc-10538

BACKGROUND

SLPI, secretory leukocyte protease inhibitor, is a 12 kDa 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. 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.
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: *Sipi* (mouse) mapping to 2 H3.

SOURCE

SLPI (V-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SLPI of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-10538 P, (100 μ 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

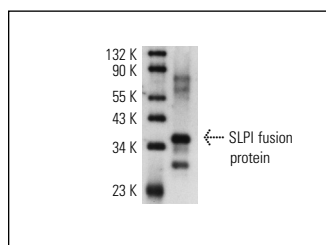
SLPI (V-17) is recommended for detection of SLPI of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SLPI siRNA (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.

DATA



SLPI (V-17): sc-10538. Western blot analysis of mouse recombinant SLPI fusion protein.

SELECT PRODUCT CITATIONS

1. Devoogdt, N., et al. 2006. The tumor-promoting effect of TNF α involves the induction of secretory leukocyte protease inhibitor. *J. Immunol.* 177: 8046-8052.
2. Piechocki, M.P., et al. 2006. Iressa induces cytostasis and augments FAS-mediated apoptosis in acinic cell adenocarcinoma overexpressing HER2/Neu. *Int. J. Cancer* 119: 441-454.
3. Sugino, T., et al. 2007. The secretory leukocyte protease inhibitor (SLPI) suppresses cancer cell invasion but promotes blood-borne metastasis via an invasion-independent pathway. *J. Pathol.* 212: 152-160.
4. Jugdutt, B.I., et al. 2009. Role of healing-specific-matrix proteins and matrix metalloproteinases in age-related enhanced early remodeling after reperfused STEMI in dogs. *Mol. Cell. Biochem.* 322: 25-36.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **SLPI (A-11): sc-374575** or **SLPI (F-12): sc-373802**, our highly recommended monoclonal alternatives to SLPI (V-17).