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SLPI Antibody

Catalog # ASC10548

Product Information

Application	WB, E, IHC-P
Primary Accession	P03973
Other Accession	CAA28187, 758101
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	14326
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	SLPI antibody can be used for detection of SLPI by Western blot at 1 - 2 g/mL. Antibody can also be used for immunohistochemistry starting at 10 g/mL.

Additional Information

Gene ID	6590
Other Names	Antileukoproteinase, ALP, BLPI, HUSI-1, Mucus proteinase inhibitor, MPI, Protease inhibitor WAP4, Secretory leukocyte protease inhibitor, Seminal proteinase inhibitor, WAP four-disulfide core domain protein 4, SLPI, WAP4, WFDC4
Target/Specificity	SLPI;
Reconstitution & Storage	SLPI antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	SLPI Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SLPI
Synonyms	WAP4, WFDC4
Function	Acid-stable proteinase inhibitor with strong affinities for trypsin, chymotrypsin, elastase, and cathepsin G (PubMed:10702419, PubMed:2039600, PubMed:2110563, PubMed:24121345, PubMed:3462719, PubMed:3533531). Modulates the inflammatory and immune responses after bacterial infection, and after infection by the intracellular parasite L.major.

	Down-regulates responses to bacterial lipopolysaccharide (LPS) (By similarity). Plays a role in regulating the activation of NF-kappa- B and inflammatory responses (PubMed:10702419, PubMed:24352879). Has antimicrobial activity against mycobacteria, but not against salmonella. Contributes to normal resistance against infection by M.tuberculosis. Required for normal resistance to infection by L.major. Required for normal wound healing, probably by preventing tissue damage by limiting protease activity (By similarity). Together with ELANE, required for normal differentiation and proliferation of bone marrow myeloid cells (PubMed:24352879).
Cellular Location	Secreted
Tissue Location	Detected in blood plasma (PubMed:24352879). Detected in bone marrow myeloid cells (PubMed:24352879). Detected in airway sputum (PubMed:2039600). Detected in parotid gland secretions (PubMed:3462719). Detected in seminal plasma (at protein level) (PubMed:3485543). Detected in uterus cervix (PubMed:3533531)

Background

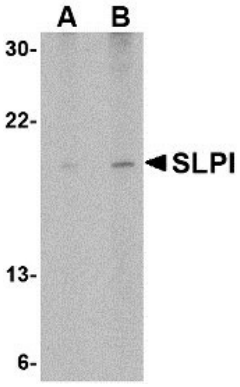
SLPI Antibody: Secretory leukocyte protease inhibitor (SLPI) is produced at mucosal surfaces, primarily the upper respiratory tract and is thought to play an important role in the antiprotease defense mechanism of the lung. SLPI forms inhibitory complexes with numerous proteolytic enzymes such as neutrophil elastase, and has been shown to possess anti-inflammatory, anti-viral, and antibacterial activities. Its expression in oral epithelial cells is stimulated by HIV-1 gp120, suggesting that SLPI is a component of the oral mucosal response to HIV-1. In peripheral blood monocytes, SLPI can inhibit NF-κB activation by inhibiting IκB degradation in the cytoplasm and competing for NF-κB binding sites in the nucleus. This attenuation of the inflammatory response may also act to suppress liver metastases and other cancer cell invasions, but promote blood-borne metastasis via an invasion-independent pathway.

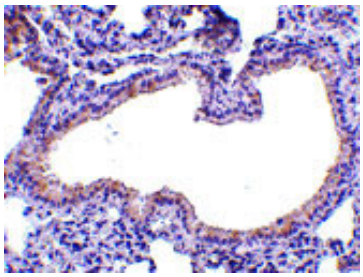
References

Abe T, Kobayashi N, Yoshimura K, et al. Expression of the secretory leukoprotease inhibitor gene in epithelial cells. J. Clin. Invest. 1991; 87:2207-15.
Hiemstra PS, Fernie-King BA, McMichael J, et al. Antimicrobial peptides: mediators of innate immunity as templates for the development of novel anti-infective and immune therapies. Curr. Pharm. Des. 2004; 10:2891-905.
Jana NK, Gray LR and Shugars DC. Human immunodeficiency virus type 1 stimulates the expression and production of secretory leukocyte protease inhibitor (SPLI) in oral epithelial cells: a role for SLPI in innate mucosal immunity. J. Virol. 2005; 79:6432-40.
Taggart CC, Cryan S-A, Weldon S, et al. Secretory leucoprotease inhibitor binds to NF-kB binding sites in monocytes and inhibits p65 binding. J. Exp. Med. 2005; 202:1659-68.

Images

Western blot analysis of SLPI in Daudi cell lysate with SLPI antibody at (A) 1 and (B) 2 µg/mL.





Immunohistochemistry of SLPI in mouse lung tissue with SLPI antibody at 10 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.