

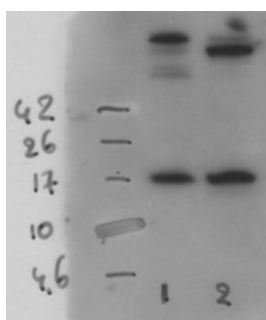
**CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET**

<b>Product name</b>	SLPI, Human, clone 31	<b>Expiry date</b>	-
<b>Catalog number</b>	HM2037-20UG	<b>Amount</b>	20 µg
<b>Lot number</b>	-	<b>Concentration</b>	100 µg/ml
<b>Volume</b>	200 µl	<b>Conjugate</b>	None
<b>Formulation</b>	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	<b>Purification</b>	Protein G
<b>Host Species</b>	Mouse IgG1		
<b>Endotoxin</b>	N.A.		
<b>Storage</b>	4°C		

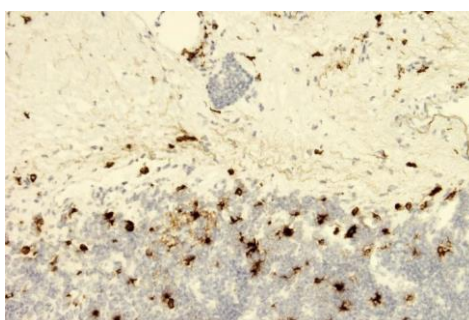
**Application notes**

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #		1,3-7				1-4		
Yes	•	•				•	•	•
No								
N.D.			•	•	•			

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot



W: Western blot with (1) recombinant SLPI 100 ng/ml non-boiled and (2) BAL (COPD) non-boiled.



IHC-F: Immunohistochemical analysis on human tonsil frozen sections, dilution 1:50.

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- P: Specimen was fixed in 4% formalin for 4h. Paraffin sections (4µm) were deparaffinized, rehydrated and blocked with normal serum. Optional antigen retrieval with citrate buffer. Section was incubated with 5µg/ml mAb
- IA: This antibody can be used as coat and detection antibody.
- F: Permeabilization was done in cold acetone with 0.5% hydrogen peroxidase for 10 min, after drying and washing, antibodies were incubated for 30 minutes.

**General Information**
**Description**

The monoclonal antibody 31 recognizes secretory leukocyte proteinase inhibitor (SLPI). SLPI was identified as an alarm reactant and expression is induced by inflammatory factors like LPS, IL1β, TNFα and neutrophils elastase. SLPI is a relatively small basic antiprotease of 11.7 kDa and is a cationic non-glycosylated protein consisting of 107 amino acids. SLPI has a high affinity for the neutrophil serine proteinases, elastase and cathepsin G. Orthologues of SLPI have been found in mice, rats, pigs and sheep. It consists of two highly similar WAP ('whey acid protein')/four-disulphide core domains. SLPI contain 16 cysteine residues which assemble into eight disulphide bridges (four in each WAP domain). SLPI is constitutively expressed at many mucosal surfaces and is produced by a variety of epithelial cells, including respiratory, intestinal and amniotic epithelia. Expression is also detected in mast cells, neutrophils and macrophages. Expression of SLPI gene is significantly increased by progesterone and by the pro-inflammatory cytokines TNF-α and IL1-β. Although SLPI has been shown to inhibit a spectrum of proteases (including HNE, cathepsin G, trypsin, chymotrypsin and chymase), its main action in this regard is likely to be the inhibition of elastase, as indicated by its low dissociation constant and favourable kinetics of inhibition for this enzyme. SLPI has been described in several body fluids like seminal fluid, bronchial fluids, cervical fluids and saliva. It has been found to be antibacterial, antifungal, anti-retroviral, and to have an important role in mucosal defence. SLPI might also facilitate

tumor spread, contributing to wound healing, is elevated in sepsis and levels seem to correlate with oral candidiasis in HIV-1 positive patients. The reactivity of the antibody 31 with isolated domains of SLPI was evaluated using domains obtained by cleavage using partial acidic hydrolysis. Therefore, monoclonal antibody 31 recognizes also other SLPI cleavage products.

<b>Immunogen</b>	SLPI purified from sputum.
<b>Aliases</b>	Human seminal plasma inhibitor I (HUSI-I), cervix uterine secretion inhibitor (CUSI), bronchial inhibitor (BI), antileukoprotease (ALP) and mucous proteinase inhibitor (MPI)
<b>Gene</b>	Gene name: SLPI, WAP4, WFDC4
<b>References</b>	<ol style="list-style-type: none"><li>1. Wingens, M et al; Induction of SLPI (ALP/HUSI-I) in epidermal keratinocytes. <i>J Invest Dermatol</i> 1998, <i>111</i>: 996</li><li>2. Nakao, R et al; Assessment of oral transmission using cell-free human immunodeficiency virus-1 in mice reconstituted with human peripheral blood leucocyte. <i>Immunology</i> 2003, <i>109</i>: 271</li><li>3. Aarbiou, J et al. Human neutrophil defensins and secretory leukocyte proteinase inhibitor in squamous metaplastic epithelium of bronchial airways. <i>Inflamm. Res</i> 2004, <i>53</i>:230-238</li><li>4. Tjabringa, S et al. Host defense effecotr molecules in mucosal secretions. <i>FEMS immunol and med microbial</i> 2005, <i>45</i>:151</li><li>5. Bingle,L et al. WFDC2 (HE4): A potential role in the innate immunity of the oral cavity and respiratory tract and the development of adenocarcinomas of the lung. <i>Resp Res</i> 2006, <i>7</i>:61</li><li>6. Cheng, W et al; Overexpression of a secretory leukocyte protease inhibitor in human gastric cancer. <i>Int J Cancer</i> 2008, <i>123</i>: 1787</li><li>7. Subramaniyam, D et al; Secretory leukocyte protease inhibitor inhibits neutrophil apoptosis. <i>Respirology</i> 2011, <i>16</i>: 300</li></ol>
<b>Storage&amp;stability</b>	Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.
<b>Precautions</b>	For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

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We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC  
Brenda Teunissen

Date  
16/11/2020

Do you have any questions or comments regarding this product? Please contact us via [support@hycultbiotech.com](mailto:support@hycultbiotech.com).