

**BPIFA1 / PLUNC Antibody (internal region)**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF3753a****Specification**

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**BPIFA1 / PLUNC Antibody (internal region) - Product Information**

Application	WB
Primary Accession	<a href="#">O9NP55</a>
Other Accession	<a href="#">NP_057667.1</a> , <a href="#">51297</a>
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	26713

**BPIFA1 / PLUNC Antibody (internal region) - Additional Information****Gene ID** 51297**Other Names**

BPI fold-containing family A member 1, Lung-specific protein X, Nasopharyngeal carcinoma-related protein, Palate lung and nasal epithelium clone protein, Secretory protein in upper respiratory tracts, Short PLUNC1, SPLUNC1, Tracheal epithelium-enriched protein, Von Ebner protein HI, BPIFA1, LUNX, NASG, PLUNC, SPLUNC1, SPURT

**Format**

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

BPIFA1 / PLUNC Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

**BPIFA1 / PLUNC Antibody (internal region) - Protein Information****Name** BPIFA1**Synonyms** LUNX, NASG, PLUNC, SPLUNC1, SPURT**Function**

Lipid-binding protein which shows high specificity for the surfactant phospholipid dipalmitoylphosphatidylcholine (DPPC) (PubMed:<a href="http://www.uniprot.org/citations/25223608" target="\_blank">25223608</a>). Plays a role

in the innate immune responses of the upper airways (PubMed:<a href="http://www.uniprot.org/citations/23499554" target="\_blank">23499554</a>, PubMed:<a href="http://www.uniprot.org/citations/23132494" target="\_blank">23132494</a>). Reduces the surface tension in secretions from airway epithelia and inhibits the formation of biofilm by pathogenic Gram-negative bacteria, such as *P.aeruginosa* and *K.pneumoniae* (PubMed:<a href="http://www.uniprot.org/citations/23499554" target="\_blank">23499554</a>, PubMed:<a href="http://www.uniprot.org/citations/23132494" target="\_blank">23132494</a>, PubMed:<a href="http://www.uniprot.org/citations/27145151" target="\_blank">27145151</a>). Negatively regulates proteolytic cleavage of SCNN1G, an event that is required for activation of the epithelial sodium channel (ENaC), and thereby contributes to airway surface liquid homeostasis and proper clearance of mucus (PubMed:<a href="http://www.uniprot.org/citations/24124190" target="\_blank">24124190</a>, PubMed:<a href="http://www.uniprot.org/citations/24043776" target="\_blank">24043776</a>). Plays a role in the airway inflammatory response after exposure to irritants (PubMed:<a href="http://www.uniprot.org/citations/11425234" target="\_blank">11425234</a>). May attract macrophages and neutrophils (PubMed:<a href="http://www.uniprot.org/citations/23132494" target="\_blank">23132494</a>).

### Cellular Location

Secreted. Note=Apical side of airway epithelial cells. Detected in airway surface liquid, nasal mucus and sputum

### Tissue Location

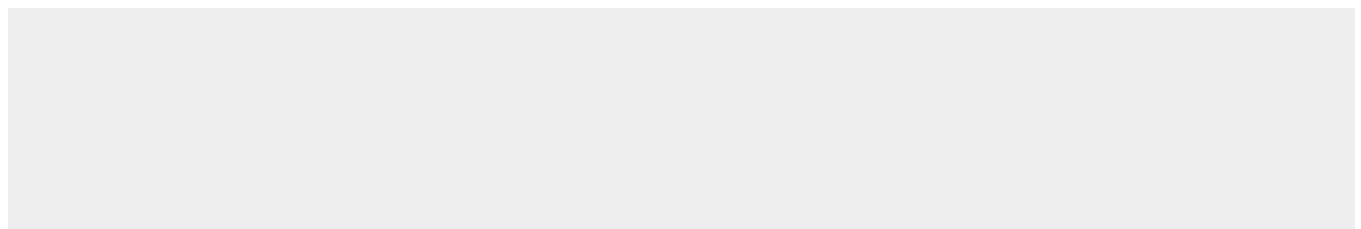
Highly expressed in lung, upper airways and nasopharyngeal regions, including trachea and nasal epithelium (at protein level) (PubMed:11018263, PubMed:11251963, PubMed:12409287, PubMed:11425234, PubMed:26559477). Specifically expressed in the secretory ducts and submucosal glands of tracheobronchial tissues (at protein level) (PubMed:12409287, PubMed:11425234). Also expressed in the eye where it is detected in lacrimal gland, eyelid, conjunctiva and cornea (at protein level) (PubMed:26559477). Specifically localizes to epithelial cell layers in cornea, eyelid (basal epithelium) and conjunctiva (at protein level) (PubMed:26559477). Detected within acinar cells and ducts in the lacrimal and Meibomian glands (at protein level) (PubMed:26559477). In lung, shows highest expression in the trachea and progressive decrease from proximal (bronchial) to distal (bronchiolar) airways (PubMed:12409287). Also expressed in lung cancers and some other types of cancer (PubMed:11251963)

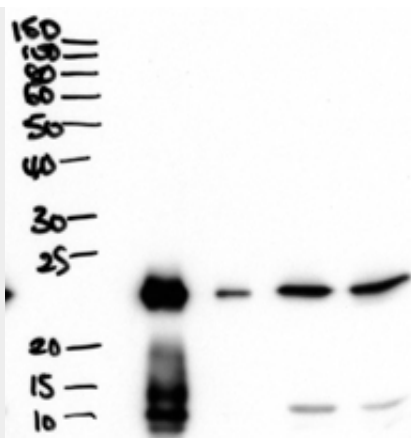
### BPIFA1 / PLUNC Antibody (internal region) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### BPIFA1 / PLUNC Antibody (internal region) - Images





AF3753a (2 µg/ml) staining of secretions from Human primary airway cells in culture (lanes 1 and 2), and in Human Bronchoalveolar Lavage fluid (lanes 3 and 4) . Data obtained from Dr. C Bingle, AURM, University of Sheffield, UK. Primary incubation was 1 hour. Detected by chemiluminescence.

#### **BPIFA1 / PLUNC Antibody (internal region) - Background**

Reported variants represent identical protein: NP\_057667.1, NP\_001230122.1, NP\_570913.1

#### **BPIFA1 / PLUNC Antibody (internal region) - References**

Antimicrobial activity of PLUNC protects against *Pseudomonas aeruginosa* infection. Lukinskiene L, Liu Y, Reynolds SD, Steele C, Stripp BR, Leikauf GD, Kolls JK, Di YP. J Immunol. 2011 Jul 1;187(1):382-90. PMID: 21632717