

Surfactant Protein B (Precursor) Ab-1 (Clone SPB01; same as 1-2-A5-9)

Mouse Monoclonal Antibody

Cat. #MS-704-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified with BSA and Azide)

Cat. #MS-704-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml) (Purified without BSA and Azide)

Cat. #MS-704-B0, -B1 or -B (0.1ml or 0.5ml or 1.0ml at 200µg/ml) (Biotin-labeled Ab with BSA and Azide)

Cat. #MS-704-R7 (7.0ml) (Ready-to-Use for Immunohistochemical Staining)

Cat. #MS-704-PCS (5 Slides) (Positive Control for Histology)

Description: Pulmonary surfactant is a complex mixture of phospholipids and proteins that is secreted from type II cells in alveoli and reduces the surface tension at the alveolar air-liquid interface, providing alveolar stability necessary for normal ventilation. Four distinct proteins isolated from pulmonary surfactant are termed surfactant proteins A, B, C, and D. SP-A (28-36kDa) and SP-D (43kDa) are collagenous carbohydrate-binding proteins, whereas SP-B (8-9kDa) and SP-C (4kDa) are non-collagenous hydrophobic proteins. SP-B is expressed in pulmonary adenocarcinomas with acinar, papillary, bronchioloalveolar, and solid growth patterns. Squamous cell and large cell carcinomas of the lung and nonpulmonary adenocarcinomas do not express SP-B. ProSP-B is glycosylated in the Golgi apparatus and undergoes carboxy- and amino-terminal proteolysis by a cathepsin D-like protease.

Comments: Ab-1 is specific to pro-SP-B and shows no reaction with mature SP-B

Mol. Wt. of Antigen: 42-46kDa

Epitope: Not determined

Species Reactivity: Human and Rat. Others not known.

Clone Designation: SPB01 (same as 1-2-A5-9)

Ig Isotype / Light Chain: IgG_{2a} / κ

Immunogen: Recombinant pro-surfactant protein B.

Applications and Suggested Dilution:

- Immunofluorescence
- Immunohistology (Formalin/paraffin)
(Use Ab at 2-4µg/ml for 30 min at RT)
- * [Staining of formalin-fixed tissues REQUIRES boiling tissue sections in 10mM citrate buffer, pH 6.0, (**NEOMARKERS'** Cat. #AP-9003), for 10-20 min followed by cooling at RT for 20 min.]

The optimal dilution for a specific application should be determined by the investigator.

Positive Control: Lung adenocarcinomas.

Cellular Localization: Cytoplasmic

Supplied As:

200µg/ml of antibody purified from ascites fluid by Protein A chromatography. Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide. Also available without BSA and azide at 1mg/ml.

Storage and Stability:

Ab with sodium azide is stable for 24 months when stored at 2-8°C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0°C.

Suggested References:

1. Khoor A, et. al. (1997) Mod Pathol, 10:62-67.

Limitations and Warranty:

Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the actual price paid for the product. NeoMarkers is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

Material Safety Data:

This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

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