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Product Information

Anti-Surfactant Protein D antibody, Mouse monoclonal
clone 10F6E12, purified from hybridoma cell culture

Product Number **SAB4200771**

Product Description

Anti-Surfactant Protein D antibody, Mouse monoclonal, (mouse IgG1 isotype) is derived from the 10F6E12 hybridoma, produced by the fusion of mouse myeloma cells and splenocytes from mouse immunized with mouse recombinant SP-D. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2. The antibody is purified from culture supernatant of hybridoma cells.

Anti-Surfactant Protein D antibody, Mouse monoclonal recognizes SP-D from human and mouse origin. The product may be used in several immunochemical techniques including Immunoblotting (~43kDa).

Surfactant Pulmonary Associated Protein D (SP-D), also known as Lung surfactant protein D, SFTPD, PSP-D or Collectin-7, is a member of the Collectin family of innate immune modulators. It is constitutively secreted by alveolar lining cells and epithelium associated with tubular structures, SP-S is released to the alveoli and to the smallest bronchioli, thus protecting the lungs from inhaled microorganisms, organic antigens and toxins.[1] SP-D is involved in a range of immune functions including viral neutralization, clearance of bacteria, fungi and apoptotic and necrotic cells, down regulation of allergic reaction and resolution of inflammation.[5] It is responsible for modulation of leukocyte action and interacts with compounds such as bacterial lipopolysaccharides, oligosaccharides and fatty acids.[2] SP-D expression increases during airway inflammation and plays an important role in inflammatory resolution. SP-D deficient mice spontaneously develop an abnormal pulmonary immune phenotype and show impaired pulmonary lymph node homing.[3]

SP-D protein principal components consist of a triple-helical collagen-like region and a C-terminal lectin or carbohydrate recognition domain (CRD) and is a subset of an expanded group of proteins termed defense collagens.[2,46] The trimeric CRDs can recognize carbohydrate or charge patterns on microbes, allergens and dying cells, while the collagen region can interact with receptor molecules present on a variety of immune cells in order to initiate clearance mechanisms.[5]

Low SP-D serum levels are associated with interstitial lung diseases and are considered to reflect the severity and prognosis of idiopathic pulmonary fibrosis (IPF).[8-9]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 2-4 μg/mL is recommended using mouse lung extract.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

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