

Product datasheet for **AM26166PU-N**

Sftpd Mouse Monoclonal Antibody [Clone ID: IVG8]

Product data:

Product Type:	Primary Antibodies
Clone Name:	IVG8
Applications:	ELISA, IHC, WB
Recommended Dilution:	Western blot. Immunoassay (detection antibody for ELISA on wells coated with human SP-D). The typical starting working dilution is 1:10. Immunohistochemistry on paraffin sections of rat lung. It cannot be used for staining of paraffin sections of human lung.
Reactivity:	Human, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Specificity:	The monoclonal antibody IVG8 recognizes surfactant protein D (SP-D).
Formulation:	PBS State: Purified State: Liquid purified 0.2 µm filtered Ig fraction Stabilizer: 0.1% bovine serum albumin Preservative: 0.02% sodium azide
Concentration:	lot specific
Purification:	Protein G
Conjugation:	Unconjugated
Storage:	Store at 2 - 8 °C.
Stability:	Shelf life: one year from despatch.
Gene Name:	surfactant protein D
Database Link:	Entrez Gene 25350 Rat P35248



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Background:

SP-D belongs to the collectin family. These proteins are oligomeric proteins composed of carbohydrate-recognition domains (CRD) attached to collagenous regions. They are structurally similar to the ficolins although they make use of different CRD structures: C-type lectin domain for the collectins. The anti-microbial effector mechanisms of SP-D are direct opsonization, neutralization, and agglutination. Thus limiting the infection and concurrently orchestrating the subsequent adaptive immune response. The lung is the major site of synthesis of SP-D, where the molecules are produced and secreted onto the epithelial surface by alveolar type II cells and unciliated bronchial epithelial cells. SP-D is also found in different epithelial cells of the gastrointestinal tract and in epithelial cells of exocrine glands. SP-D synthesis and secretion increase significantly after inflammatory stress. Increased amounts of SP-D in lavage and tissue, particularly in type II pneumocytes, in Clara cells and in hyperplastic goblet cells are found in inflamed lungs. The localization of SP-D in endocytic vesicles and in lysosomal granules of alveolar macrophages suggests that a receptor-mediated uptake occurs. SP-D binds to apoptotic neutrophils and enhances their clearance by alveolar macrophages.

Synonyms:

Lung surfactant protein D, SP-D, PSP-D, PSPD, SFTP4, Collectin-7, COLEC7