

CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	SP-D, Rat, clone IIIH3	Expiry date	-
Catalog number	HM3022-20UG		
Lot number	-	Amount	20 µg
Volume	200 µl	Concentration	100 µg/ml
Formulation	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	Conjugate	None
Host Species	Mouse IgG1	Purification	Protein G
Endotoxin	N.A.		
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #								
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

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 1:10.

- IA: HM3022 can be used as detection antibody.
- IHC-P: HM3022 can be used for paraffin embedded sections of human origin as well.

General Information

Description	The monoclonal antibody IIIH3 recognizes the rat surfactant protein D (SP-D). 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. Monoclonal antibody IIIH3 specific for rat surfactant protein D shows significant cross reactivity with human SP-D.
Aliases	Surfactant Protein D
Cross reactivity	Human: Yes
References	<ol style="list-style-type: none"> 1. Kasper, M et al; Monoclonal antibodies to surfactant protein D: evaluation of immunoreactivity in normal rat lung and in a radiation-induced fibrosis model. <i>Exp Lung Res</i> 1995, 21: 577 2. ter Horst, S et al. Spatial and temporal expression of surfactant proteins in hyperoxia-induced neonatal rat lung injury. <i>BMC Pulmonary Medicine</i> 2006, 6:8
Storage&stability	Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.

Precautions

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.

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
11/01/2021

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.