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DATA SHEET

Rabbit Anti-Surfactant/SP-D [MD165R]: RM0199, RM0199RTU7

Intended Use: For Research Use Only

Description: Pulmonary surfactant is primarily responsible for lowering the surface tension at the air-liquid interface in the alveoli, a process that is essential for normal respiration. Pulmonary surfactant is a mixture of phospholipids and proteins, including four distinct surfactant-associated proteins (SPs): SP-A, SP-B, SP-C and SP-D. SP-B and SP-C showed strong immunohistochemical expression in Lung Hyperplasias and Adenomas, suggesting that SP-B and SP-C are related to lung tumorigenesis. SP-A and SP-D are large multimeric proteins belonging to the family of calcium-dependent lectins, designated Collectins, which contribute to the innate immune system. SP-D is a protein encoded by the SFTPD gene. Studies found low expression of SF-D expression in lung, gastric, and breast cancers and high expression in different stages and grades of ovarian cancer. SF-D expression could be associated with a favorable prognosis in lung cancer but unfavorable in non-pulmonary sites such as breast, gastric and ovarian cancers. The purified Spike protein of SARS-CoV-2 bound to Vero but not 293T cells and was itself recognized by SP-D, in the lung alveoli. It suggests that SARS-CoV interacts with innate immune mechanisms in the lung through its S-protein and regulates pulmonary inflammation.

Specifications

Clone:	MD165R
Source:	Rabbit
Isotype:	IgG
Reactivity:	Human
Immunogen:	Recombinant fragment of human SFTPD protein aa241-336
Localization:	Cytoplasm, membrane, secreted
Formulation:	Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN3)
Storage:	Store at 2°- 8°C
Applications:	IHC

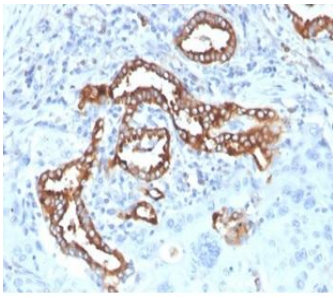
Package:

Description	Catalog No.	Size
Surfactant/SP-D Concentrated	RM0199	1 ml
Surfactant/SP-D Prediluted	RM0199RTU7	7 ml

IHC Procedure*

Positive Control Tissue:	Epithelial cells of the lung, skin, small intestine or bladder
Concentrated Dilution:	50-200
Pretreatment:	Tris EDTA pH9.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
Incubation Time and Temp:	30-60 minutes @ RT
Detection:	Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human lung stained with anti-SP-D using DAB

References:

1. Rewiring of human lung cell lineage and mitotic networks in lung adenocarcinomas. Il-Jin Kim, et al. Nat Commun. 4:1701, 2013.

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