PRODUCT SPECIFICATION

PS-0127 v01

Anti-Surfactant protein D (human, hSP-D)

Mouse monoclonal antibody

Subclass: IgG1/k

CAT. NO. **HYB 245-01**

Clone: 12G5

SPECIFICITY	HYB 245-01 is specific for human SP-D.
IMMUNOGEN	Recombinant neck CRD SP-D
TESTED APPLICATIONS	ELISA, WB, IHC-P
SPECIES REACTIVITY (POSITIVE)	Human
SPECIES REACTIVITY (NEGATIVE)	Not determined
EPITOPE SPECIFICITY	Not determined

PRESENTATION

Content:	Available in 400 µL and 1 mL size.1 mg/mL +/- 15%. See Certificate of Analysis for details.
Preparation:	Protein-A purified
Form:	Liquid
Solvent:	0.01 M phosphate buffer, pH 7.4, containing 0.5 M NaCl and 15 mM sodium azide
Storage:	4-8ºC without exposure to light. No precautions necessary during handling.

APPLICATION

ELISA: HYB 245-01 can be used for ELISA with Ca^{++} present in the buffer.
WB: In Western blotting after SDS-PAGE HYB 245-01 reacts strongly with SP-D, both in reduced and non-reduced forms. In Western blotting a dilution guideline of 1/20.000 has proved successful (2, 3).
IHC: In immunohistochemical staining on paraffin embedded tissues, HYB 245-01 reacts specifically with SP-D. Immunoreactivity can be found in epithelial cells of the lung, skin, small intestine, esophagus, gallbladder, kidney and urinary bladder (1, 2, 3).

TARGET

Surfactant protein D (SP-D) is synthesized and secreted by lung epithelial cells. It belongs to group III of the family of C-type lectins and members of this group has overall structure consisting of multiple globular 'head' regions linked by triple-helical, collagen-like, strands. This group also includes SP-A and the serum proteins mannan-binding protein, conglutinin and collectin-43, all of which have been shown to bind to the C1q receptor found on a wide variety of cells. Both SP-D and SP-A have been shown to enhance oxygen radical production by alveolar macrophages. The serum concentration is 88 ng/ml in healthy individuals (1).

REFERENCES

1. Holmskov U, Mollenhauer J, Madsen J, Vitved L, Gronlund J, Tornoe I, Kliem A, Reid KB, Poustka A, Skjodt K (1999) Cloning of gp-340, a putative opsonin receptor for lung surfacant protein D. Proc Natl Acad Sci USA 96:10794-9.
2. Madsen J, Kliem A, Tornoe I, Skjodt K, Koch C, Holmskov U (2000) Localization of lung surfactant protein D on mucosal surfaces in human tissues. J Immunol 164:5866–70.
3. Madsen J, Tornoe I, Nielsen O, Koch C, Steinhilber W, Holmskov U (2003) Expression and localization of lung surfactant protein A in human tissues. Am J Respir Cell Mol Biol 29:591-7.

CONDITIONS