

Mouse Surfactant protein D / SP-D ELISA Kit ab213890

1 References 1 Image

Overview

Product name	Mouse Surfactant protein D / SP-D ELISA Kit				
Detection method	Colorimetric				
Precision	Intra-assay				
	Sample	n	Mean	SD	CV%
	1	16	641pg/ml	26.92	4.2%
	2	16	2012pg/ml	151.05	7.5%
	3	16	9766pg/ml	625.02	6.4%
	Inter-assay				
	Sample	n	Mean	SD	CV%
	1	24	618pg/ml	37.69	6.1%
	2	24	1957pg/ml	162.43	8.3%
	3	24	9758pg/ml	692.81	7.1%
Sample type	Cell culture supernatant, Serum, Cell Lysate, Hep Plasma, EDTA Plasma, Tissue Homogenate				
Assay type	Sandwich (quantitative)				
Sensitivity	< 10 pg/ml				
Range	312 pg/ml - 20000 pg/ml				
Assay time	3h 30m				
Assay duration	Multiple steps standard assay				
Species reactivity	Reacts with: Mouse				
Product overview	The Mouse Surfactant protein D / SP-D Enzyme-Linked Immunosorbent Assay (ELISA) kit (ab213890) is designed for the quantitative detection of Mouse Surfactant protein D / SP-D in cell culture supernatants, cell lysates, tissue homogenates, serum and plasma (heparin, EDTA).				

The ELISA kit is based on standard sandwich enzyme-linked immunosorbent assay technology. A

polyclonal antibody from sheep specific for Surfactant protein D / SP-D has been precoated onto 96-well plates. Standards (Expression system for standard: CHO; Immunogen sequence: A20-F374) and test samples are added to the wells, a biotinylated detection polyclonal antibody from sheep specific for Surfactant protein D / SP-D is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the Mouse Surfactant protein D / SP-D amount of sample captured in plate.

**Notes** Surfactant, pulmonary-associated protein D, also known as SFTPD or Surfactant protein D / SP-D, is a protein which in humans is encoded by the SFTPD gene. By fluorescence in situ hybridization, the Surfactant protein D / SP-D gene was localized in 10q22.2-q23.1. On the basis of homology with other collectins, potential functions for SPD include roles in innate immunity and surfactant metabolism, Surfactant protein D / SP-D is produced in the bronchiolar and terminal epithelium of human fetal lung from about 21 weeks of gestation. What's more, SP-A and Surfactant protein D / SP-D act as dual-function surveillance molecules that reverse orientation and function and become initiators of host-defense reactions.

**Platform** Pre-coated microplate (12 x 8 well strips)

## Properties

**Storage instructions** Store at -20°C. Please refer to protocols.

Components	Identifier	1 x 96 tests	1 x 96 tests
ABC Diluent Buffer	Blue Cap	1 x 12ml	1 x 12ml
Adhesive Plate Seal		4 units	4 units
Antibody Diluent Buffer	Green Cap	1 x 12ml	1 x 12ml
Anti-Mouse Surfactant protein D / SP-D coated Microplate (12 x 8 wells)		1 unit	1 unit
Avidin-Biotin-Peroxidase Complex (ABC)		1 x 100µl	1 x 100µl
Biotinylated anti-Mouse Surfactant protein D / SP-D antibody		1 x 100µl	1 x 100µl
Lyophilized recombinant Mouse Surfactant protein D / SP-D standard		2 vials	2 vials
Sample Diluent Buffer	Green Cap	1 x 30ml	1 x 30ml
TMB Color Developing Agent	Black Cap	1 x 10ml	1 x 10ml
TMB Stop Solution	Yellow Cap	1 x 10ml	1 x 10ml
Wash Buffer (25X)		1 x 20ml	1 x 20ml

**Function** Contributes to the lung's defense against inhaled microorganisms. May participate in the extracellular reorganization or turnover of pulmonary surfactant. Binds strongly maltose residues and to a lesser extent other alpha-glucosyl moieties.

**Sequence similarities** Belongs to the SFTPD family.

Contains 1 C-type lectin domain.

Contains 1 collagen-like domain.

#### Post-translational modifications

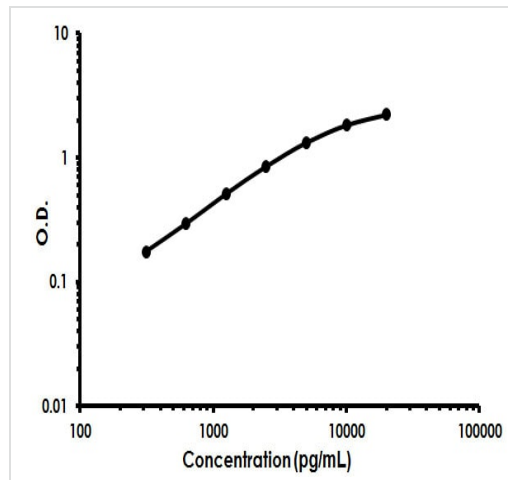
The N-terminus is blocked.

Hydroxylation on proline residues within the sequence motif, GXPG, is most likely to be 4-hydroxy as this fits the requirement for 4-hydroxylation in vertebrates.

#### Cellular localization

Secreted > extracellular space > extracellular matrix. Secreted > extracellular space > surface film.

#### Images



Mouse Surfactant protein D / SP-D ELISA Kit (ab213890) Standard Curve.

Mouse Surfactant protein D / SP-D ELISA Kit  
(ab213890) Standard Curve.

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