

## Datasheet for ABIN2859319

### SFTPD ELISA Kit

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#### 1 Image

#### Overview

Quantity:	96 tests
Target:	SFTPD
Binding Specificity:	AA 21-375
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	625-40.000 pg/mL
Minimum Detection Limit:	625 pg/mL
Application:	ELISA

#### Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human SP-D
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: A21-F375
Specificity:	Expression system for standard: NSO Immunogen sequence: A21-F375
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

## Product Details

Sensitivity:	<20pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g NaCl

## Target Details

Target:	SFTPD
Alternative Name:	SFTPD ( <a href="#">SFTPD Products</a> )
Background:	<p>Protein Function: Contributes to the lung's defense against inhaled microorganisms, organic antigens and toxins. Interacts with compounds such as bacterial lipopolysaccharides, oligosaccharides and fatty acids and modulates leukocyte action in immune response. May participate in the extracellular reorganization or turnover of pulmonary surfactant. Binds strongly maltose residues and to a lesser extent other alpha-glucosyl moieties. .</p> <p>Background: Surfactant, pulmonary-associated protein D, also known as SFTPD or SP-D, is a protein which in humans is encoded by the SFTPD gene. By fluorescence in situ hybridization, the SP-D gene was localized in 10q22.2-q23.1. On the basis of homology with other collectins, potential functions for SP-D include roles in innate immunity and surfactant metabolism, 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 SP-D act as dual-function surveillance molecules that reverse orientation and function and become initiators of host-defense reactions.</p> <p>Synonyms: Pulmonary surfactant-associated protein D,PSP-D,SP-D,Collectin-7,Lung surfactant protein D,SFTPD,COLEC7, PSPD, SFTP4,</p> <p>Full Gene Name: Pulmonary surfactant-associated protein D</p> <p>Cellular Localisation: Secreted, extracellular space, extracellular matrix. Secreted, extracellular space, surface film.</p>
Gene ID:	6441
UniProt:	<a href="#">P35247</a>

## Application Details

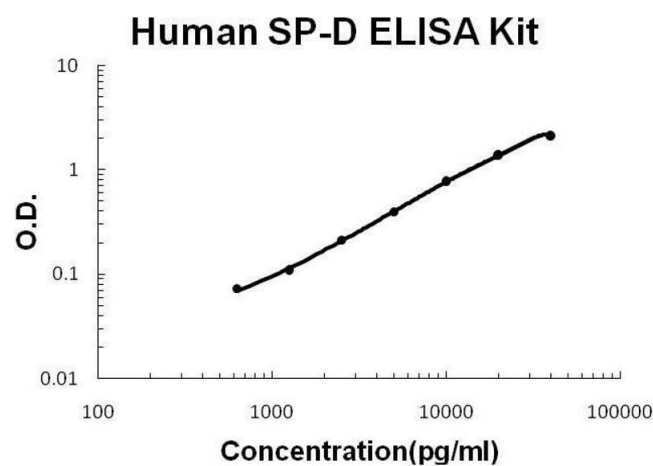
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
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## Application Details

Comment:	Sequence similarities: Belongs to the SFTPD family.  Tissue Specificity: Expressed in lung, brain, pancreas and adipose tissue (mainly mature adipocytes). .
Plate:	Pre-coated
Protocol:	human SP-D ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for SP-D has been precoated onto 96-well plates. Standards(NSO, A21-F375) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for 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 human SP-D amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 40,000pg/mL, 20,000pg/mL, 10,000pg/mL, 5,000pg/mL, 2,500pg/mL, 1,250pg/mL, 625pg/mL human SP-D standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human SP-D standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none"><li>• Sample 1: n=16, Mean(ng/ml): 6.32, Standard deviation: 0.537, CV(%): 8.5</li><li>• Sample 2: n=16, Mean(ng/ml): 14.3, Standard deviation: 0.729, CV(%): 5.1</li><li>• Sample 3: n=16, Mean(ng/ml): 25.4, Standard deviation: 1.7, CV(%): 6.7,</li><li>• Sample 1: n=24, Mean(ng/ml): 5.76, Standard deviation: 0.513, CV(%): 8.9</li><li>• Sample 2: n=24, Mean(ng/ml): 13.5, Standard deviation: 1.24, CV(%): 9.2</li><li>• Sample 3: n=24, Mean(ng/ml): 24.7, Standard deviation: 2, CV(%): 8.1</li></ul>
Restrictions:	For Research Use only

## Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months



ELISA

**Image 1.** Human SP-D PicoKine ELISA Kit standard curve