Rat Pulmonary Surfactant-associated protein B (SP-B) ELISA Kit

Catalog No: #EK7349

Package Size: #EK7349-1 48T #EK7349-2 96T

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

Product Name	Rat Pulmonary Surfactant-associated protein B (SP-B) ELISA Kit
Brief Description	ELISA Kit
Applications	ELISA
Species Reactivity	Rat (Rattus norvegicus)
Other Names	PSP-B; SFTB3; SFTP3; SMDP1; SP-B; OTTHUMP00000203253|Pulmonary surfactant-associated protein B; 18kD|surfactant; pulmonary-associated protein B
Accession No.	P15285
Uniprot	P15285
GeneID	100009194;
Storage	The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition. The loss rate was determined by accelerated thermal degradation test. Keep the kit at 37C for 4 and 7 days, and compare O.D.values of the kit kept at 37C with that of at recommended temperature. (referring from China Biological Products Standard, which was calculated by the Arrhenius equation. For ELISA kit, 4 days storage at 37C can be considered as 6 months at 2 - 8C, which means 7 days at 37C equaling 12 months at 2 - 8C).

Application Details

Detect Range:0.156-10 ng/mL

Sensitivity:0.054 ng/mL

Sample Type:Serum, Plasma, Other biological fluids

Sample Volume: 1-200 µL

Assay Time:1-4.5h

Detection wavelength:450 nm

Product Description

Detection Method:SandwichTest principle:This assay employs a two-site sandwich ELISA to quantitate SFTPB in samples. An antibody specific for SFTPB has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anySFTPB present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for SFTPB is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of SFTPB bound in the initial step. The color development is stopped and the intensity of the color is measured.Product Overview:SP-B is expressed in pulmonary adenocarcinomas with acinar, papillary, bronchioloalveolar, and solid growth patterns. Squamous cell and large cell carcinomas of the lung and nonpulmonary adenocarcinomas do not express SP-B. Pulmonary surfactant-associated protein B' is a membrane protein which manufactures surfactant.Humans and animals born with a congenital absence of SP-B suffer from intractable respiratory failure.

The SFTPB is an amphipathic surfactant protein essential for lung function and homeostasis after birth. Pulmonary surfactant is a lipid-rich material that prevents lung collapse by lowering surface tension at the air-liquid interface in the alveoli of lung. SPB enhances the rate of spreading and increases the stability of surfactant monolayers in vitro.

Note: This product is for in vitro research use only