

**RPES8442**

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## Product Information

<b>Product SKU:</b>	RPES8442	<b>Expression Host:</b>	Mammalian	<b>Size:</b>	20µg
<b>Tag:</b>	C-His	<b>Reactivity:</b>	Mouse	<b>Accession:</b>	P50404

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## Additional Information

<b>Calculated MW:</b>	38.9 kDa	<b>Observed MW:</b>	40-50 kDa
<b>Sequence:</b>	Ala20-Phe374		

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## Protein Information

**Background:** Surfactant pulmonary-associated protein D, also known as SFTPD and SP-D, is a member of the collectin family of C-type lectins that is synthesized in many tissues including respiratory epithelial cells in the lung, and contains one C-type lectin domain and one collagen-like domain. The polymorphic variation in the N-terminal domain of the SP-D molecule influences oligomerization, function, and the concentration of the molecule in serum. SFTPD is produced primarily by alveolar type II cells and nonciliated bronchiolar cells in the lung and is constitutively secreted into the alveoli where it influences surfactant homeostasis, effector cell functions, and host defense. It is upregulated in a variety of inflammatory and infectious conditions including Pneumocystis pneumonia and asthma. SFTPD is humoral molecules of the innate immune system, and is considered a functional candidate in chronic periodontitis. Besides, it is involved in the development of acute and chronic inflammation of the lung. Several Human lung diseases are characterized by decreased levels of bronchoalveolar SFTPD. Thus, recombinant SFTPD has been proposed as a therapeutical option for cystic fibrosis, neonatal lung disease and smoking-induced emphysema. Furthermore, SFTPD serum levels can be used as disease activity markers for interstitial lung diseases.

**Synonyms:** -

**Endotoxin:** < 1.0 EU/mg of the protein as determined by the LAL method

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**Formulation:** Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.

**Purity:** > 90% as determined by reducing SDS-PAGE.

**Bio-Activity:** Not validated for activity

**Storage:** Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.