

## SP-D Protein, Mouse (HEK293, His)

<b>Cat. No.:</b>	HY-P71329
<b>Synonyms:</b>	COLECT7; Collectin 7; Lung surfactant protein D; PSPD; pulmonary surfactant-associated protein D; SFTPD; SPD; SP-D; SP-Dpulmonary surfactant apoprotein; surfactant protein D; surfactant, pulmonary-associated protein D;
<b>Species:</b>	Mouse
<b>Source:</b>	HEK293
<b>Accession:</b>	P50404 (A20-F374)
<b>Gene ID:</b>	20390
<b>Molecular Weight:</b>	42-46 kDa

### PROPERTIES

<b>AA Sequence</b>	<p>A E M K S L S Q R S    V P N T C T L V M C    S P T E N G L P G R    D G R D G R E G P R</p> <p>G E K G D P G L P G    P M G L S G L Q G P    T G P V G P K G E N    G S A G E P G P K G</p> <p>E R G L S G P P G L    P G I P G P A G K E    G P S G K Q G N I G    P Q G K P G P K G E</p> <p>A G P K G E V G A P    G M Q G S T G A K G    S T G P K G E R G A    P G V Q G A P G N A</p> <p>G A A G P A G P A G    P Q G A P G S R G P    P G L K G D R G V P    G D R G I K G E S G</p> <p>L P D S A A L R Q Q    M E A L K G K L Q R    L E V A F S H Y Q K    A A L F P D G R S V</p> <p>G D K I F R T A D S    E K P F E D A Q E M    C K Q A G G Q L A S    P R S A T E N A A I</p> <p>Q Q L I T A H N K A    A F L S M T D V G T    E G K F T Y P T G E    P L V Y S N W A P G</p> <p>E P N N N G G A E N    C V E I F T N G Q W    N D K A C G E Q R L    V I C E F</p>
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20 mM MES, 150 mM NaCl, pH 7.4 .
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	Surfactant protein D (SP-D) plays a vital role in bolstering the lung's defense mechanisms against inhaled microorganisms, organic antigens, and toxins. This multifaceted protein interacts with various compounds, including bacterial lipopolysaccharides, oligosaccharides, and fatty acids, thereby modulating leukocyte responses in the immune system.
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Additionally, SP-D is implicated in the extracellular reorganization or turnover of pulmonary surfactant, contributing to the maintenance of lung homeostasis. Notably, SP-D exhibits a robust affinity for maltose residues and other alpha-glucosyl moieties. Structurally, it forms an oligomeric complex consisting of four sets of homotrimers, underscoring its intricate organization in pulmonary defense processes.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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