

SP-D Protein, Human (HEK293, His)

Cat. No.:	HY-P70986
Synonyms:	Pulmonary Surfactant-Associated Protein D; PSP-D; SP-D; Collectin-7; Lung Surfactant Protein D; SFTPD; COLEC7; PSPD; SFTP4
Species:	Human
Source:	HEK293
Accession:	AAH22318.1 (A21-F375)
Gene ID:	6441
Molecular Weight:	Approximately 45.0 kDa

PROPERTIES

AA Sequence	AGMKTYSHRT MPSACTLVMC SSVESGLPGR DGRDGREGR GEKGDPLPG AAGQAGMPGQ AGPVGPKGDN GSVGEPGPKG DTGPSGPPGP PGVPGPAGRE GPLGKQGNIG PQGKPGPKGE AGPKGEVGP GMQGSAGARG LAGPKGERGV PGERGVPGNT GAAGSAGAMG PQGSPGARGP PGLKGDKGIP GDKGAKGESG LPDVASLRQQ VEALQGQVQH LQAAFSQYKK VELFPNGQSV GEKIFKTAGF VKPFTEAQLL CTQAGGQLAS PRSAAENAAAL QQLVVAKNEA AFLSMTDSKT EGKFTYPTGE SLVYSNWAPG KPNDDGGSED CVEIFTNGKW NDRACGEKRL VVCEF
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.2.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	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.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The SP-D protein plays a crucial role in bolstering the lung's defense mechanisms against inhaled microorganisms, organic antigens, and toxins. It engages with various compounds, including bacterial lipopolysaccharides, oligosaccharides, and fatty acids, thereby influencing leukocyte activity in the immune response. Additionally, SP-D is implicated in the
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extracellular reorganization or turnover of pulmonary surfactant, contributing to the maintenance of respiratory function. The protein exhibits a strong binding affinity for maltose residues and, to a lesser extent, other alpha-glucosyl moieties. Notably, SP-D forms an oligomeric complex comprising four sets of homotrimers, emphasizing its structural organization in facilitating its diverse functions (

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

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