Recombinant Human SP-D (C-6His)

Catalog No: C541

Description	Recombinant Human Pulmonary Surfactant-Associated Protein D is produced by our Mammalian expression system and the target gene encoding Ala21-Phe375 is expressed with a 6His tag at the C-terminus.
Source	Human Cells
Alternative name	Pulmonary Surfactant-Associated Protein D; PSP-D; SP-D; Collectin-7; Lung Surfactant Protein D; SFTPD; COLEC7; PSPD; SFTP4
Accession No.	AAH22318.1
Predicted Molecular Weight	36.46kDa
AP Molecular Weight	45kDa, reducing conditions.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20mM PB, 150mM NaCl, pH 7.2.
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100μg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Quality Control	Purity: Greater than 95% as determined by reducing SDS-PAGE. Endotoxin: Less than 0.1 ng/μg (1 IEU/μg) as determined by LAL test.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
Storage	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Background	Surfactant Pulmonary-Associated Protein D (SP-D) is a 43 kDa member of the collectin family of innate immune modulators. Its principal components consist of a collagen-like region and a C-terminal carbohydrate recognition domain (CRD), a structure that places it in a subset of pattern recognition proteins termed defense collagens. SP-D is constitutively secreted by alveolar lining cells and epithelium associated with tubular structures and induced in cardiac smooth muscle and endothelial cells. It binds both secreted and transmembrane proteins that transduce its function. It binds human neutrophil defensins, modulating influenza anti-viral defense. It binds MD-2/LY96, a secreted protein that cooperates with Toll-like receptors (TLRs) in the response of macrophages to bacterial lipopolysaccharides (LPS) or cell wall components. It also binds macrophage CD14 and TLRs directly, blocking binding of LPS and down- regulating TNF-α secretion. SP-D binding of both SIRPα and the calreticulin/CD91 complex on macrophages allows for a graded response to environmental challenge.

SDS-Page