

Recombinant Human SFTPD/SP-D Protein (Glu22Gly, His Tag)

Catalog No. PKSH032982

Note: Centrifuge before opening to ensure complete recovery of vial contents.

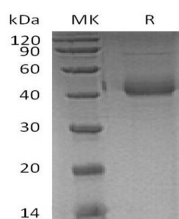
Description

Synonyms	Pulmonary Surfactant-Associated Protein D;PSP-D;SP-D;Collectin-7;Lung Surfactant Protein D;SFTPD;COLEC7;PSPD;SFTP4;COLEC7;SFTP4
Species	Human
Expression Host	HEK293 Cells
Sequence	Ala21-Phe375
Accession	AAH22318.1
Calculated Molecular Weight	36.5 kDa
Observed molecular weight	45 kDa
Tag	C-His
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
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.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.2. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Surfactant Pulmonary-Associated Protein D (SP-D) is a 43 kDa member of the collectin family of innate immune

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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 SIRP α and the calreticulin/CD91 complex on macrophages allows for a graded response to environmental challenge.