

## 32-7492: Recombinant Human Pulmonary Surfactant-Associated Protein D/PSP-D (C-6His)

**Gene :** SFTPD  
**Gene ID :** 6441  
**Uniprot ID :** P35247

### Description

Source: Human Cells.  
MW :36.46kD.

Recombinant Human PSP-D is produced by our Mammalian expression system and the target gene encoding Ala21-Phe375(Glu22Gly) is expressed with a 6His tag at the C-terminus. 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- $\alpha$  secretion. SP-D binding of both SIRP $\alpha$  and the calreticulin/CD91 complex on macrophages allows for a graded response to environmental challenge.

### Product Info

**Amount :** 10  $\mu$ g / 50  $\mu$ g  
**Content :** Lyophilized from a 0.2  $\mu$ m filtered solution of 20mM PB, 150mM NaCl, pH 7.2.  
**Storage condition :** 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.  
**Amino Acid :** AGMKTYSHRTMP SACTLVMCSSVESGLPGRDGRDGREGPRGEKGDPLPGAAGQAGMPGQAGPVGPVKGDN  
GSVGEPGPKGDTGPSGPPGPPGVPGPAGREGPLGKQGNIGPQGKPGPKGEAGPKGEVGAPGMQGSAGARGL  
AGPKGERGVPGERGVPGNTGAAGSAGAMGPQGSPGARGPPGLKGDKGIPGDKGAKGESGLPDVASLRQQVE  
ALQGQVQHLQA AFSQYKKVELFPNGQSVGEKIFKTAGFVKPFTEAQLLCTQAGGQLASPRSA AENAALQQLVV  
AKNEAAFLSMTDSKTEGKFTYPTGESLVYSNWAPGKPNDDGGSEDCVEIFTNGKWNDRACGEKRLVVCEFVD  
HHHHHH

### Application Note

Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100  $\mu$ g/ml. Dissolve the lyophilized protein in ddH<sub>2</sub>O. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

**Endotoxin :** Less than 0.1 ng/ $\mu$ g (1 IEU/ $\mu$ g) as determined by LAL test.