Recombinant SFTPD protein (His tag)

Catalog Number	539914
Synonyms	PSP-D; SP-D; Collectin-7; Lung surfactant protein D
Species	Human
Expression System	E. coli
Accession	P35247
Molecular Weight	Predictes a molecular mass of 18.36 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 18 kDa band.

Product Information

Sequence Region	222-375
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 222-375 aa (P35247) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Pulmonary Surfactant-Associated Protein D (PSP-D) Fragment (aa 222-375) is a high-purity protein designed for studying the C-type lectin domain. This fragment enables targeted investigation into PSP-D's role in lung defense mechanisms, offering researchers a precise tool for immunological and surfactant research. Pulmonary Surfactant-Associated Protein D (PSP-D), encoded by the SFTPD gene in humans, is a crucial component of the lung's innate immune defense system. It contributes to protection against inhaled microorganisms, organic antigens, and toxins through interactions with bacterial lipopolysaccharides, oligosaccharides, and fatty acids. PSP-D modulates leukocyte activity in immune responses and may participate in extracellular reorganization or turnover of pulmonary surfactant. The protein demonstrates strong binding affinity for maltose residues and other alpha-glucosyl moieties. PSP-D is secreted into the extracellular space, where it localizes to both the extracellular matrix and surface film, positioning it at critical interfaces for host-pathogen interactions and surfactant function.