



Recombinant Protein Technical Manual

Recombinant Mouse SFTPD/SP-D Protein (His Tag)

RPES0708

Product Data:

Product SKU: RPES0708

Size: 10µg

Species: Mouse

Expression host: Human Cells

Uniprot: P50404

Protein Information:

Molecular Mass: 36.7 kDa

AP Molecular Mass: 42 kDa

Tag: C-His

Bio-activity:

Purity: > 95% as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

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.

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 MES, 150mM NaCl, pH 7.4 .

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: COLEC7; Collectin 7; Lung surfactant protein D; PSPD; Pulmonary surfactant-associated protein D; SFTPD; SPD; SP-D; SP-Dpulmonary surfactant apoprotein; surfactant protein D; surfactant, pulmonary-associated protein D;SFTP4

Immunogen Information:

Sequence: Ala20-Phe374

Background:

Pulmonary surfactant-associated protein D (SP-D) is a 43 kDa member of the collectin family of innate immune modulators. Mouse SP-D cDNA encodes a 19 aa signal sequence and a 355 aa mature region with a 25 aa N-terminal linking-region, a 177 aa hydroxyproline and hydroxylysine collagen-like domain, a 46 aa coiled-coil segment, and a 106 aa, C-terminal collectin-like C-type lectin domain . SP-D is found in serum, plasma, broncho-alveolar lavage (BAL) fluid, and amniotic fluid. It also binds SIRP alpha and the calreticulin/CD91 complex on macrophages. SP-D contributes to the lung's defense against inhaled microorganisms, organic antigens and toxins. It interacts with compounds such as bacterial lipopolysaccharides, oligosaccharides and fatty acids and modulates leukocyte action in immune response. It may participate in the extracellular reorganization or turnover of pulmonary surfactant. It binds strongly maltose residues and to a lesser extent other alpha-glucosyl moieties.