

## SP-D Protein, Rhesus Macaque (HEK293, His)

<b>Cat. No.:</b>	HY-P77494
<b>Synonyms:</b>	Pulmonary surfactant-associated protein D; PSP-D; SP-D; Lung surfactant protein D; SFTPD
<b>Species:</b>	Rhesus Macaque
<b>Source:</b>	HEK293
<b>Accession:</b>	Q1PBC5/NP_001035283.1 (D22-F375)
<b>Gene ID:</b>	678657
<b>Molecular Weight:</b>	Approximately 40-50 kDa due to the glycosylation

### PROPERTIES

#### AA Sequence

DMKTYSQRTA	PSACTLVMCS	SVESGLPGRD	GRDGREGPRG
EKGDPGLPGA	AGKAGMPGEA	GPVGPKGDNG	SIGEPGPKGD
TGPSGPPGPP	GVPGPAGREG	PLGKQGNIGP	QGKPGPKGEA
GPKGEVGA PG	MQGSAGARGP	AGPKGDRGVP	GERGAPGNAG
AAGSAGVMGP	QGS PGARGPP	GLKGDKGVP G	DKGAKGESGL
PDVASLRQQV	EALQKQVQHL	QAAFSQYKKV	ELFPNGQSVG
EKIFKTAGFV	KPFTEAQLVC	TQAGGQLASP	RSAAENAA LQ
QLVIAQNEAA	FLSMTDSKME	GKFTYPTGES	LVYSNWAPGE
PND DGGSEDC	VEIFTNGKWN	DRACGEKRLV	VCEF

#### Appearance

Lyophilized powder

#### Formulation

Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.

#### Endotoxin Level

<1 EU/µg, determined by LAL method.

#### Reconstitution

It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH<sub>2</sub>O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

#### Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

#### Shipping

Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

#### Background

The SP-D protein plays a crucial role in bolstering the lung's defense mechanisms against inhaled microorganisms, organic antigens, and toxins. It engages with various compounds, including bacterial lipopolysaccharides, oligosaccharides, and fatty acids, thereby influencing leukocyte activity in the immune response. Additionally, SP-D is implicated in the

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extracellular reorganization or turnover of pulmonary surfactant, contributing to the maintenance of respiratory function. The protein exhibits a strong binding affinity for maltose residues and, to a lesser extent, other alpha-glucosyl moieties. Notably, SP-D forms an oligomeric complex comprising four sets of homotrimers, emphasizing its structural organization in facilitating its diverse functions (

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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