

Hycult biotechnology

SP-C, Human pAb

Catalog No.	HP9050	Quantity:	100 µg
Alternate Names:	SFTPC, previous SFTP2		
Description:	<p>The polyclonal antibody recognizes the human surfactant protein C (SP-C). There are four surfactant-specific proteins, designated surfactant protein A (SP-A), SP-B, SP-C and SP-D respectively. SP-A and SP-D are hydrophilic surfactant proteins and are members of the collectin family. SP-B and SP-C are hydrophobic surfactant proteins and may be the most appropriate indicators for the evolutionary origin of surfactant.</p> <p>SP-C is a 34-35 amino acid peptide, of 4 kD that is proteolytically processed from a 21 kD precursor protein. SP-C is initiated early in the embryogenic period of lung formation, where SP-C transcripts are detected uniformly in epithelial cells lining the primitive airways. During lung development SP-C expression is decreased in cells of the proximal conducting portion of the lung. Ultimately SP-C is expressed selectively in type II epithelial cells in the alveolus of the lung. SP-C is secreted into the airspace where it enhances the spreading and stability of surfactant phospholipids in the alveolus. SP-C plays an important role in the spreading and stabilization of phospholipid films in the alveolus. SP-C is essential for air-breathing in mammals and is therefore largely conserved. Deficiency of SP-C and other surfactant components is associated with respiratory distress syndrome (RDS) in premature infants and adults with respiratory distress syndrome (ARDS).</p>		
Concentration:	100 µg/ml		
Host:	Rabbit		
Immunogen:	Recombinant human pro-SP-C (AA 1-33), GST fusion.		
Isotype:	IgG		
Formulation:	Liquid (100 µg/ml) 0.2 µm filtered antibody solution in PBS, containing 0.1% bovine serum albumin and 0.02% sodium azide. Precaution: Sodium azide is a poisonous and hazardous substance which should be handled by trained staff only.		
Cross-Reactivity:	Cross reactive with mouse SP-C.		
Applications	The polyclonal antibody can be used for Western blotting. Furthermore the polyclonal antibody is useful for Immunohistology on both frozen and paraffin sections. For immunohistology and Western blotting dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.		
Storage & Stability:	Product should be stored at 4°C. Under recommended storage conditions, product is stable for one year.		

References:



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- Physiol Lung Cell Mol Physiol 1999, 277: 1104
2. Nogee, L et al; Allelic heterogeneity in hereditary surfactant protein B (SP-B) deficiency. Am J Respir Crit Care Med 2000, 161: 973
 3. Nogee, L et al; A mutation in the surfactant protein C gene associated with familial interstitial lung disease. NEJM 2001, 344: 573
 4. Glasser, S et al; Altered stability of pulmonary surfactant in SP-C-deficient mice. PNAS 2001, 98: 6366
 5. Glasser, S, et al; Pneumonitis and emphysema in sp-C gene targeted mice. J Biol Chem 2001, 278: 14291

Also available:

- HP7002: Polyclonal antibody against Human SP-B
HP9049: Polyclonal antibody against Human SP-B
HM3022: Monoclonal antibody against Human SP-D, clone IIIH3

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