

SP-C (FL-197): sc-13979

BACKGROUND

Pulmonary surfactant is primarily responsible for lowering the surface tension at the air-liquid interface in the alveoli, a process that is essential for normal respiration. Pulmonary surfactant is a mixture of phospholipids and proteins, including four distinct surfactant-associated proteins (SPs), SP-A, SP-B, SP-C, SP-D. SP-B and SP-C are predominantly hydrophobic proteins that associate with lipids to promote the absorption of surfactant phospholipids and to reduce the surface tension in the alveoli. SP-A and SP-D are large multimeric proteins belonging to the family of calcium-dependent lectins, designated collectins, which contribute to the innate immune system. Both SP-A and SP-D have been shown to protect against microbial challenge through binding to the lipid components of the bacterial cell wall and facilitating the rapid removal of microbes.

CHROMOSOMAL LOCATION

Genetic locus: SFTPC (human) mapping to 8p21.3; Sftpc (mouse) mapping to 14 D2.

SOURCE

SP-C (FL-197) is a rabbit polyclonal antibody raised against amino acids 1-197 representing full length SP-C of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SP-C (FL-197) is recommended for detection of SP-C of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SP-C siRNA (h): sc-36539, SP-C siRNA (m): sc-36540, SP-C shRNA Plasmid (h): sc-36539-SH, SP-C shRNA Plasmid (m): sc-36540-SH, SP-C shRNA (h) Lentiviral Particles: sc-36539-V and SP-C shRNA (m) Lentiviral Particles: sc-36540-V.

Molecular Weight of SP-C precursor: 21 kDa.

Molecular Weight of mature SP-C: 4-11 kDa.

Positive Controls: Mv 1 Lu cell lysate: sc-3810, AMJ2-C8 whole cell lysate: sc-364366 or MH-S whole cell lysate: sc-364785.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

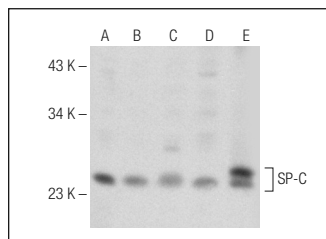
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

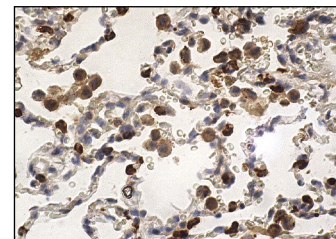
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



SP-C (FL-197): sc-13979. Western blot analysis of SP-C expression in Mv 1 Lu (A), AMJ2-C8 (B), AMJ2-C11 (C), MH-S (D) and P 23 (E) whole cell lysates.



SP-C (FL-197): sc-13979. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing cytoplasmic staining of pneumocytes and macrophages.

SELECT PRODUCT CITATIONS

1. Wootton, S.K., et al. 2005. Sheep retrovirus structural protein induces lung tumours. *Nature* 434: 904-907.
2. Sati, L., et al. 2010. Lung surfactant proteins in the early human placenta. *Histochem. Cell Biol.* 133: 85-93.
3. Xu, K., et al. 2010. Lunatic Fringe-mediated Notch signaling is required for lung alveogenesis. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 298: L45-L56.
4. Zhang, X., et al. 2010. Prognostic significance of OCT4 expression in adenocarcinoma of the lung. *Jpn. J. Clin. Oncol.* 40: 961-966.
5. Chintagari, N.R., et al. 2010. Role of GABA receptors in fetal lung development in rats. *PLoS ONE* 5: e14171.
6. Farrell, M.R., et al. 2010. Thioredoxin-interacting protein inhibits hypoxia-inducible factor transcriptional activity. *Free Radic. Biol. Med.* 49: 1361-1367.
7. Walsh, S.R., et al. 2010. Full-length genome sequence analysis of enzootic nasal tumor virus reveals an unusually high degree of genetic stability. *Virus Res.* 151: 74-87.
8. Feng, D., et al. 2010. Dynamic investigation of alveolar type II cell function in a long-term survival model of rat lung ischemia-reperfusion injury. *Scand. J. Clin. Lab. Invest.* 70: 364-373.
9. Rehan, V.K., et al. 2011. Thirdhand smoke: a new dimension to the effects of cigarette smoke on the developing lung. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 301: L1-L8.

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