# LPLUNC1 (S-17): sc-85753



The Power to Question

# **BACKGROUND**

LPLUNC1 (long palate, lung and nasal epithelium carcinoma-associated protein 1), also known as C20orf114, is a 484 amino acid secreted protein that belongs to the BPI/LBP/PLUNC superfamily. Expressed in lung, trachea and nasal septal epithelia, LPLUNC1 is thought to be involved in the innate immune response to bacterial exposure in the mouth, nasal cavities and lungs. LPLUNC1, which exists as multiple alternatively spliced isoforms, is encoded by a gene which maps to a BPI/LBP/PLUNC gene cluster on human chromosome 20. Comprising approximately 2% of the human genome, chromosome 20 contains nearly 63 million bases that encode over 600 genes, some of which are associated with Creutzfeldt-Jakob disease, amyotrophic lateral sclerosis, spinal muscular atrophy, ring chromosome 20 epilepsy syndrome and Alagille syndrome.

# **REFERENCES**

- Bingle, C.D. and Craven, C.J. 2002. PLUNC: a novel family of candidate host defence proteins expressed in the upper airways and nasopharynx. Hum. Mol. Genet. 11: 937-943.
- Zhang, B., Nie, X., Xiao, B., Xiang, J., Shen, S., Gong, J., Zhou, M., Zhu, S., Zhou, J., Qian, J., Lu, H., He, X., Li, X., Hu, G. and Li, G. 2003. Identification of tissue-specific genes in nasopharyngeal epithelial tissue and differentially expressed genes in nasopharyngeal carcinoma by suppression subtractive hybridization and cDNA microarray. Genes Chromosomes Cancer 38: 80-90.
- 3. Hou, J., Yashiro, K., Okazaki, Y., Saijoh, Y., Hayashizaki, Y. and Hamada, H. 2004. Identification of a novel left-right asymmetrically expressed gene in the mouse belonging to the BPI/PLUNC superfamily. Dev. Dyn. 229: 373-379.
- LeClair, E.E., Nomellini, V., Bahena, M., Singleton, V., Bingle, L., Craven, C.J. and Bingle, C.D. 2004. Cloning and expression of a mouse member of the PLUNC protein family exclusively expressed in tongue epithelium. Genomics 83: 658-666.
- Casado, B., Pannell, L.K., ladarola, P. and Baraniuk, J.N. 2005. Identification of human nasal mucous proteins using proteomics. Proteomics 5: 2949-2959.

# CHROMOSOMAL LOCATION

Genetic locus: C20orf114 (human) mapping to 20q11.21.

# **SOURCE**

LPLUNC1 (S-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LPLUNC1 of human origin.

# **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-85753 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

LPLUNC1 (S-17) is recommended for detection of LPLUNC1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with LPLUNC3 and LPLUNC4.

Suitable for use as control antibody for LPLUNC1 siRNA (h): sc-75694, LPLUNC1 shRNA Plasmid (h): sc-75694-SH and LPLUNC1 shRNA (h) Lentiviral Particles: sc-75694-V.

Molecular Weight (predicted) of LPLUNC1: 52 kDa.

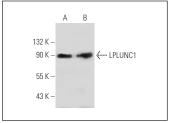
Molecular Weight (observed) of LPLUNC1: 90 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or WI 38 whole cell lysate: sc-364260.

# **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

#### DATA



LPLUNC1 (S-17): sc-85753. Western blot analysis of LPLUNC1 expression in WI 38 (A) and HeLa (B) whole cell lysates

### **STORAGE**

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

# **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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com