

# Recombinant Full Length Human SFTPB Protein, C-Flag-tagged

**Cat. No.** SFTPB-247HFL    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| <b>Product Overview</b> | Recombinant Full Length Human SFTPB Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Source</b>           | Mammalian Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Description</b>      | <p>This gene encodes the pulmonary-associated surfactant protein B (SPB), an amphipathic surfactant protein essential for lung function and homeostasis after birth. Pulmonary surfactant is a surface-active lipoprotein complex composed of 90% lipids and 10% proteins which include plasma proteins and apolipoproteins SPA, SPB, SPC and SPD. The surfactant is secreted by the alveolar cells of the lung and maintains the stability of pulmonary tissue by reducing the surface tension of fluids that coat the lung. The SPB enhances the rate of spreading and increases the stability of surfactant monolayers in vitro. Multiple mutations in this gene have been identified, which cause pulmonary surfactant metabolism dysfunction type 1, also called pulmonary alveolar proteinosis due to surfactant protein B deficiency, and are associated with fatal respiratory distress in the neonatal period. Alternatively spliced transcript variants encoding the same protein have been identified.</p> |
| <b>Form</b>             | 25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Molecular Mass</b>   | 39.5 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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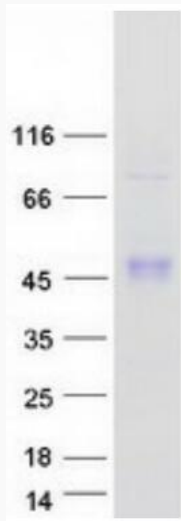
 45-1 Ramsey Road, Shirley, NY 11967, USA

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|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AA Sequence</b>      | MAESHLQWLLLLPTLCGPGTAAWTTSSLACAQGPEFWCQSLEQALQCRAIGHC<br>LQEVWGHVVGADDLCQ ECEDIVHILNKMAKEAIFQDTMRKFLEQECNVLPKLLMPQ<br>CNQVLDDYFPLVIDYFQNQTDSNGICMHL GLCKSRQPEPEQEPGMSDPLPKPLRD<br>PLPDPLLDKLVLPVLPALQARPGPHTQDLSEQQFPIPLPYCWL CRALIKRIQAMIPK<br>GALAVAVAQVCRVVPLVAGGICQCLAERYSVILLDTLLGRMLPQLVCRLVLRCSMD<br>DSAGPRSPTGEWLPRDSECHLCMSVTTQAGNSSEQAIPQAMLQACVGSWLDREK<br>CKQFVEQHTPQLLTLV<br>PRGWDHAHTTCQALGVC GTMSSPLQCIHSPDLTRTRPLEQKLISEEDLAANDILDYKD<br>DDDKV |
| <b>Purity</b>           | > 80% as determined by SDS-PAGE and Coomassie blue staining.                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Stability</b>        | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.                                                                                                                                                                                                                                                                                                                  |
| <b>Storage</b>          | Store at -80 centigrade.                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Concentration</b>    | >50 ug/mL as determined by microplate BCA method.                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Preparation</b>      | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.                                                                                                                                                                                                                                                                                                                                               |
| <b>Protein Families</b> | Druggable Genome, Secreted Protein                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Full Length</b>      | Full L.                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>GENE INFORMATION</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Gene Name</b>        | SFTPB surfactant protein B [ Homo sapiens (human) ]                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Official Symbol</b>  | SFTPB                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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| <b>Synonyms</b>                                                                                                                               | SP-B; PSP-B; SFTB3; SFTP3; SMDP1 |
| <b>Gene ID</b>                                                                                                                                | 6439                             |
| <b>mRNA Refseq</b>                                                                                                                            | NM_198843.3                      |
| <b>Protein Refseq</b>                                                                                                                         | NP_942140.3                      |
| <b>MIM</b>                                                                                                                                    | 178640                           |
| <b>UniProt ID</b>                                                                                                                             | P07988                           |
|  <p>Coomassie blue staining of purified SFTP3 protein.</p> |                                  |