

Product datasheet for **SC307793**

SFTPb (NM_198843) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SFTPb (NM_198843) Human Untagged Clone
Tag:	Tag Free
Symbol:	SFTPb
Synonyms:	PSP-B; SFTB3; SFTP3; SMDP1; SP-B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC307793 representing NM_198843. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGCACCAAGCAGGGTACCCAGGCTGCAGAGGTGCCATGGCTGAGTCACACCTGCTGCAGTGGCTGCTG
CTGCTGCTGCCACGCTCTGTGGCCAGGCACTGCTGCCTGGACCACCTCATCCTTGGCCTGTGCCACG
GGCCCTGAGTTCTGGTGCACAAAGCCTGGAGCAAGCATTGCAGTGCAGAGCCCTAGGGCATTGCCTACG
GAAGTCTGGGACATGTGGGAGCCGATGACCTATGCCAAGAGTGTGAGGACATCGCCACATCCTTAAC
AAGATGGCCAAGGAGGCCATTTCCAGGACACGATGAGGAAGTCTGGAGCAGGAGTGCACAGTCTCTC
CCCTTGAAGCTGCTCATGCCCCAGTGCACCAAGTGTGACGACTACTCCCCCTGGTCATCGACTAC
TTCCAGAACAGACTGACTCAAACGGCATCTGTATGCACCTGGGCTGTGCAAATCCCGGACGCCAGAG
CCAGAGCAGGAGCCAGGGATGTCAGACCCCTGCCAAACCTCTGCGGGACCCCTCTGCCAGACCCCTG
CTGGACAAGCTCGTCCCTCTGTGCTGCCCGGGGCCCTCCAGGCGAGGCCTGGGCCTCACACACAGGAT
CTCTCCGAGCAGCAATCCCCATTCTCTCCCCTATTGCTGGCTCTGCAGGGCTCTGATCAAGCGGATC
CAAGCCATGATCCCAAGGGTGCCTAGCTGTGGCAGTGGCCAGGTGTGCCCGTGGTACCTCTGGTG
GCGGGCGGCATCTGCCAGTGCCTGGCTGAGCGCTACTCCGTATCCTGCTCGACACGCTGCTGGGCCG
ATGCTGCCCCAGCTGGTCTGCCGCTCGTCTCCGGTGTCCATGGATGACAGCGCTGCCCAAGGTCCG
CCGACAGGAGAATGGCTGCCGCGAGACTCTGAGTGCCACCTCTGCATGTCCTGTGACCACCCAGGCCGG
AACAGCAGCGAGCAGGCCATACCACAGGCAATGCTCCAGGCTGTGTTGGCTCCTGGCTGGACAGGGAA
AAGTGCAAGCAATTTGTGGAGCAGCACAGCCCCAGCTGCTGACCTGGTGGCCAGGGGCTGGGATGCC
CACACCCTGCCAGGCCCTCGGGGTGTGTGGACCATGTCCAGCCCTCTCCAGTGTATCCACAGCCCC
GACCTTGA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
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Restriction Sites: Sgfl-Mlul



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Plasmid Map:	□
ACCN:	NM_198843
Insert Size:	1182 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_198843.2
RefSeq Size:	2854 bp
RefSeq ORF:	1182 bp
Locus ID:	6439
UniProt ID:	P07988
Cytogenetics:	2p11.2
Protein Families:	Druggable Genome, Secreted Protein
MW:	43.3 kDa

Gene Summary:

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.[provided by RefSeq, Feb 2010]

Transcript Variant: This variant (2) lacks an internal segment in the 3' UTR, as compared to variant 1. Both variants 1 and 2 encode the same protein.