

Product datasheet for **RC203246**

SFTPC (NM_003018) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: SFTPC (NM_003018) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: SFTPC
Synonyms: BRICD6; PSP-C; SFTP2; SMDP2; SP-C; SP5
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC203246 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATGTGGGCAGCAAAGAGGTCCTGATGGAGAGCCCGCCGACTACTCCGCAGCTCCCCGGGGCCGAT
TTGGCATTCCCTGCTGCCAGTGCACCTGAAACGCCTTCTATCGTGGTGGTGGTGGTCTCATCGT
CGTGGTGATTGTGGGAGCCCTGCTCATGGGTCTCCACATGAGCCAGAAACACACGGAGATGGTTCTGGAG
ATGAGCATTGGGGCGCCGAAGCCAGCAACGCCTGGCCCTGAGTGAGCACCTGGTTACCACTGCCACCT
TCTCCATCGGCTCCACTGGCCTCGTGGTGTATGACTACCAGCAGCTGCTGATCGCCTACAAGCCAGCCCC
TGGCACCTGCTGTACATCATGAAGATAGCTCCAGAGAGCATCCCCAGTCTTGAGGCTCTCAATAGAAAA
GTCCACAACCTCCAGATGGAATGCTCTCTGCAGGCCAAGCCCGCAGTGCCTACGTCTAAGCTGGGCCAGG
CAGAGGGGCGAGATGCAGGCTCAGCACCTCCGGAGGGGACCCGGCCTTCTGGGCATGGCCGTGAACAC
CCTGTGTGGCGAGGTGCCGCTCTACTACATC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC203246 protein sequence
Red=Cloning site Green=Tags(s)

MDVGSKEVLMESPPDYSAAPRGRFGIPCCPVHLKRLLIIVVVVVLIIVVVIVGALLMGLHMSQKHEMVL
MSIGAPEAQRLALSEHLVTTATFSIGSTGLVVDYQQLLIAYKPAPGTCCYIMKIAPESIPSLEALNRK
VHNFQMECSLQAKPAVPTSKLGQAEGRDAGSAPSGGDP AFLGMAVNTLCGEVPLYYI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



Chromatograms: https://cdn.origene.com/chromatograms/mk6050_b10.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_003018

ORF Size: 591 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

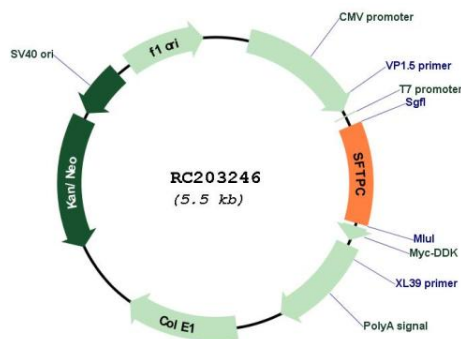
RefSeq: [NM_003018.2](#), [NP_003009.1](#)

RefSeq Size: 989 bp

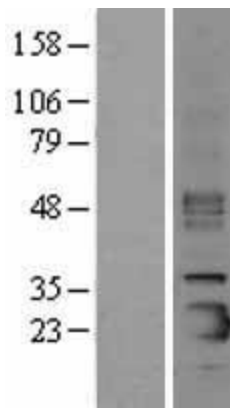
RefSeq ORF: 594 bp
Locus ID: 6440
UniProt ID: [P11686](#)
Cytogenetics: 8p21.3
Protein Families: Secreted Protein, Transmembrane
MW: 21.1 kDa

Gene Summary: This gene encodes the pulmonary-associated surfactant protein C (SPC), an extremely hydrophobic 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. Multiple mutations in this gene have been identified, which cause pulmonary surfactant metabolism dysfunction type 2, also called pulmonary alveolar proteinosis due to surfactant protein C deficiency, and are associated with interstitial lung disease in older infants, children, and adults. Alternatively spliced transcript variants encoding different protein isoforms have been identified.[provided by RefSeq, Feb 2010]

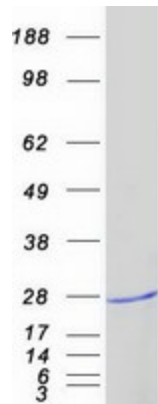
Product images:



Circular map for RC203246



Western blot validation of overexpression lysate (Cat# [LY401055]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203246 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SFTPC protein (Cat# [TP303246]). The protein was produced from HEK293T cells transfected with SFTPC cDNA clone (Cat# RC203246) using MegaTran 2.0 (Cat# [TT210002]).