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Product datasheet for SC116675

SHIP (INPP5D) (NM_005541) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SHIP (INPP5D) (NM_005541) Human Untagged Clone
Tag:	Tag Free
Symbol:	SHIP
Synonyms:	hp51CN; p150Ship; SHIP; SHIP-1; SHIP1; SIP-145
Mammalian Cell Selection:	None
Vector:	pCMV6-XL6
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC116675 sequence for NM_005541 edited (data generated by NextGen Sequencing)

```
ATGGTCCCCTGCTGGAACCATGGCAACATCACCCGCTCCAAGGCGGAGGAGCTGCTTTCC
AGGACAGGCAAGGACGGGAGCTTCCTCGTGCGTGCCAGCGAGTCCATCTCCCGGGCATAC
GCGCTCTGCGTGCTGTATCGGAATTGCGTTTACACTTACAGAATTCTGCCCAATGAAGAT
GATAAATTCACTGTTCAGGCATCCGAAGGCGTCTCCATGAGGTTCTTCACCAAGCTGGAC
CAGCTCATCGAGTTTTACAAGAAGGAAAACATGGGGCTGGTGACCCATCTGCAATACCCT
GTGCCGCTGGAGGAAGAGGACACAGGCGACGACCCTGAGGAGGACACAGAAAGTGTCGTG
TCTCCACCCGAGCTGCCCCCAAGAAACATCCCGCTGACTGCCAGCTCCTGTGAGGCCAAG
GAGGTTCCTTTTTCAAACGAGAATCCCCGAGCGACCGAGACCAGCCGGCCGAGCCTCTCC
GAGACATTGTTCCAGCGACTGCAAAGCATGGACACCAGTGGGCTTCCAGAAGAGCATCTT
AAGGCCATCCAAGATTATTTAAGCACTCAGCTCGCCCAGGACTCTGAATTTGTGAAGACA
GGGTCCAGCAGTCTTCCTCACCTGAAGAAACTGACCACACTGCTCTGCAAGGAGCTCTAT
GGAGAAGTCATCCGGACCCTCCCATCCCTGGAGTCTCTGCAGAGGTTATTTGACCAGCAG
CTCTCCCCGGGCCTCCGTCCACGTCCTCAGGTTCCTGGTGAGGCCAATCCCATCAACATG
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TTGCTGCACGAGGGTCCTGAGTCTCCGCACCGGCCCTCCCTTATCCCTCCAGTCACCTTT
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ATCCACACGCTCTGGAACATCCGCATCGTGGTGCTGGCCAAGCCTGAGCACGAGAACCGG
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ATCAGCCACATCTGTACTGACAACGTGAAGACAGGCATTGCAAACACACTGGGGAACAAG
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TTGACTTCAGGAAGTGAAAAGAAACTCAGGCGAAACCAAAACTATATGAACATTCTCCGG
TTCCTGGCCCTGGGCGACAAGAAGCTGAGTCCCTTTAACATCACTCACCGCTTCACGCAC
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TGGAGCTACGACCAGCCGCCCAAGGACTCCCCGCTGGGGCCCTGCAGGGGAGAAAGTCCT
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GACACGCTGCCTCAGGAGGACCTGCCGCTGACGAAGCCCGAGATGTTTGAGAACCCCCTG
TATGGGTCCCTGAGTTCCTTCCCTAAGCCTGCTCCCAGGAAGGACCAGGAATCCCCCAAA
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ATCAAGCCTTCCAGATCGGAAATCAACCAGCAGACCCCGCCCACCCCGACGCCGCGGCCG
CCGCTGCCAGTCAAGAGCCCGGCGGTGCTGCACCTCCAGCACTCCAAGGGCCGCGACTAC
CGCGACAACACCGAGCTCCCGCATCACGGCAAGCACCGGCCGGAGGAGGGGCCACCAGGG
CCTCTAGGCAGGACTGCCATGCAGTGA

Clone variation with respect to NM_005541.3

5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_005541 unedited
TCCGCCCGTTGCCGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGC
TCATTTAGGTGACACTATAGAATACAAGCTACTTGTTCTTTTTGCAGCGGCCGCGAATTC
GCACGAGGGTGGCAGCAGCCGAGGCCACCAAGAGGCAACGGGCGGCAGGTTGCAGTGGAG
GGGCCTCCGCTCCCCTCGGTGGTGTGTGGGTCCTGGGGGTGCCTGCCGGCCCGGCCGAGG
AGGCCCACGCCCACCATGGTCCCCTGCTGGAACCATGGCAACATCACCCGCTCCAAGGCG
GAGGAGCTGCTTTCCAGGACAGGCAAGGACGGGAGCTTCCTCGTGCGTGCCAGCGAGTCC
ATCTCCCGGGCATACGCGCTCTGCGTGCTGTATCGGAATTGCGTTTACACTTACAGAATT
CTGCCCAATGAAGATGATAAATTCACTGTTCAGGCATCCGAAGGCGTCTCCATGAGGTTC
TTCACCAAGCTGGACCAGCTCATCGAGTTTTACAAGAAGGAAAACATGGNGCTGGTGACC
CATCTGCATACCCTGTGCCGCTGGAGGAAGAGGACACAGGCGACGACCCCTGAGAGGACA
CAGAAAGTGTCGTGTCTTCACCCGAGCTGCCCCCCAGAAACATCCCGCTGACTGCCAGCT
CCTGTGAGGCCACGAGGGTNCTTTTTCAAACGAGATCCCCGAGCGACCGAGACCANCGGC
CGAGGCTTTTCGAGAATTGTTCCAGCGACTGCAAGCATGGCCCCAGGGGGCTTCCGCAGA
CATTTAAGGGCCCCCCAGATATTTAAGCCTTCGTTTGCCCAGAATTTGAATTTTGAGAAC
AGGTCACCAGTTTTCTCACCTGAAAAATGACCCACTGTTTGTAGGGGTCTTTGGGAAAAT
TCCGGCCCTCCACTCCTGGGTTCTCCGAGGTATTTACCAAACTTTCCCGGCCC
```

Restriction Sites: NotI-NotI

ACCN: NM_005541

Insert Size: 5500 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).

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.

RefSeq: NM_005541.3, NP_005532.2

RefSeq Size: 4925 bp

RefSeq ORF: 3567 bp

Locus ID: 3635

UniProt ID: Q92835

Cytogenetics: 2q37.1

Domains: SH2, Exo_endo_phos

Protein Families: Druggable Genome

Protein Pathways: B cell receptor signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Insulin signaling pathway, Phosphatidylinositol signaling system

Gene Summary: This gene is a member of the inositol polyphosphate-5-phosphatase (INPP5) family and encodes a protein with an N-terminal SH2 domain, an inositol phosphatase domain, and two C-terminal protein interaction domains. Expression of this protein is restricted to hematopoietic cells where its movement from the cytosol to the plasma membrane is mediated by tyrosine phosphorylation. At the plasma membrane, the protein hydrolyzes the 5' phosphate from phosphatidylinositol (3,4,5)-trisphosphate and inositol-1,3,4,5-tetrakisphosphate, thereby affecting multiple signaling pathways. The protein is also partly localized to the nucleus, where it may be involved in nuclear inositol phosphate signaling processes. Overall, the protein functions as a negative regulator of myeloid cell proliferation and survival. Mutations in this gene are associated with defects and cancers of the immune system. Deficiencies in the encoded protein, SHIP1, have been associated with Inflammatory Bowel Disease types such as Crohn's Disease and Ulcerative Colitis. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, Jul 2020]
Transcript Variant: This variant (2) uses an alternate in-frame splice site in the 5' coding region, compared to variant 1, resulting in an isoform (b) that is 1 aa shorter than isoform a.