

Product datasheet for SC317750

SHTN1 (NM_018330) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SHTN1 (NM_018330) Human Untagged Clone
Tag:	Tag Free
Symbol:	SHTN1
Synonyms:	KIAA1598; shootin-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC317750 representing NM_018330. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTGTAAACGACTACTATAGGGCCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAACAGCTCGGACGAAGAGAAGCAGCTGCAGCTCATTACCAGTCTGAAGGAGCAAGCAATAGGCGAA
TATGAAGACCTTAGAGCAGAGAACCAGAAAAACAAGGAGAAGTGTGACAAAATTAGGCAAGAACGAGAT
GAAGCCGTTAAAAAAGTGAAGAATTTTCAGAAAATTTCTCACATGGTCATAGAGGAAGTTAATTTTCATG
CAGAACCATCTTGAATAGAGAAGACTTGTGAGAAAAGTGTGAAAGCTTTGGCAACAAAGCTAAATAAA
GAAAATAAACGTTGAAAAGAATCAGCATGTTGTACATGGCCAAGCTGGGACCAGATGTAATAACTGAA
GAGATAAACATTGATGATGAAGATTCGACTACAGACACAGACGGTGCCGCCGAGACTTGTGTCTCAGTA
CAGTGTGAGAAGCAAAATTAAGAACTTCGAGATCAAATTTGATCTGTTCCAGGAGGAAAAGAAGATTTTA
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GAAAAGACTGTTTTAAATTCAGAAGTCTTGAACAGAGAAAAGTCTTAGAAAAATGCAATAGAGTGTCC
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CAGAGCTCCATCCCTGATCAGCAGCTTTTGAAGCTTTAGACGAAAATGCAAACTCACCCAGCAACTT
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CCTATCCGATCCCTCATGTCATGATCCGAAACGATCCCACCCAGTGGCAGTGGTGCTAAGAAAGAA
AAGGCAACTCAACCAGAAAACACTGAAGAAGTACAGATCTAAAGAGGCAAGCAGTTGAAGAGATGATG
GATAGAATTAAGGGAGTTTCATCTTAGACCCGTTAATCAGACAGCCAGACCGAAGACAAAGCCAGAA
TCTTCGAAAGGCTGCGAAAGTGCAGTGGATGAACTAAAAGGAATACTGGCCTCCCAGTAG
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGCGC
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Restriction Sites:	Sgfl-Mlul
ACCN:	NM_018330
Insert Size:	1371 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:	<u>NM_018330.6</u>
RefSeq Size:	5047 bp
RefSeq ORF:	1371 bp
Locus ID:	57698
UniProt ID:	<u>A0MZ66</u>
Cytogenetics:	10q25.3
MW:	52.6 kDa

Gene Summary:

Involved in the generation of internal asymmetric signals required for neuronal polarization and neurite outgrowth. Mediates netrin-1-induced F-actin-substrate coupling or 'clutch engagement' within the axon growth cone through activation of CDC42, RAC1 and PAK1-dependent signaling pathway, thereby converting the F-actin retrograde flow into traction forces, concomitantly with filopodium extension and axon outgrowth. Plays a role in cytoskeletal organization by regulating the subcellular localization of phosphoinositide 3-kinase (PI3K) activity at the axonal growth cone. Plays also a role in regenerative neurite outgrowth. In the developing cortex, cooperates with KIF20B to promote both the transition from the multipolar to the bipolar stage and the radial migration of cortical neurons from the ventricular zone toward the superficial layer of the neocortex. Involved in the accumulation of phosphatidylinositol 3,4,5-trisphosphate (PIP3) in the growth cone of primary hippocampal neurons.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) lacks two consecutive exons in the 3' coding region compared to variant 1, which results in a frame-shift and a shorter isoform (b, also known as shootin 1a) with a distinct C-terminus compared to isoform a.