

## Product datasheet for **SC113549**

### 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
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Cell Selection:	None
Fully Sequenced ORF:	>NCBI ORF sequence for NM_018330, the custom clone sequence may differ by one or more nucleotides

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ATGAACAGCTCGGACGAAGAGAAGCAGCTGCAGCTCATTACCAGTCTGAAGGAGCAAGCAATAGGCGAAT
ATGAAGACCTTAGAGCAGAGAACCAGAAAACAAAGGAGAAGTGTGACAAAATTAGGCAAGAACGAGATGA
AGCCGTTAAAAAACTGGAAGAATTTTCAGAAAATTTCTCACATGGTCATAGAGGAAGTTAATTTTCATGCAG
AACCATCTTGAATAGAGAAGACTTGTGCGAAGGTGCTGAAGCTTTGGCAACAAAGCTAAATAAGAAA
ATAAAACGTTGAAAAGAATCAGCATGTTGTACATGGCCAAGCTGGGACCAGATGTAATAACTGAAGAGAT
AAACATTGATGATGAAGATTCGACTACAGACACAGACGGTGCCGCCGAGACTTGTGTCTCAGTACAGTGT
CAGAAGCAAATTAAGAAGCTTCGAGATCAAATTTGTATCTGTTTCAGGAGGAAAAGAAGATTTTAGCCATTG
AGCTGGAAAATCTCAAGAGCAAACCTCGTAGAAGTAATTGAAGAAGTAAATAAAGTTAAACAAGAAAAGAC
TGTTTTAAATTCAGAAGTTCTTGAACAGAGAAAAGTCTTAGAAAAATGCAATAGAGTGTCCATGTTAGCT
GTAGAAGAGTATGAGGAGATGCAAGTAAACCTGGAGCTGGAGAAGGACCTTCGAAAGAAAGCAGAGTCAT
TTGCACAAGAGATGTTTCATTGAGCAAAAACAGCTAAAGAGACAAAGCCACCTTCTGCTGCAGAGCTCCAT
CCCTGATCAGCAGCTTTTGAAGCTTTAGACGAAAATGCAAAACTCACCCAGCAACTTGAAGAAGAGAGA
ATTCAGCATCAACAAAAGGTCAAAGAATTAGAAGAGCAACTAGAAAATGAAACACTCCACAAAAGAATAC
ACAACCTCAAACAGCAACTGGAGCTTCTAGAGGAAGATAAAAAGGAATTGGAATTGAAATATCAGAATTC
TGAAGAGAAAAGCCAGAAATTTAAAGCACTCTGTTGATGAACTCCAGAAAAGAGTGAACCAGTCTGAGAAT
TCAGTACCTCCACCACCTCCTCCTCCACCACCTTCCCCTCCACCTCCCAATCCTATCCGATCCCTCA
TGTCCATGATCCGAAAACGATCCACCCAGTGGCAGTGGTGCTAAGAAAAGAAAAGGCAACTCAACCAGA
AACAACTGAAGAAGTACAGATCTAAAGAGGCAAGCAGTTGAAGAGATGATGGATAGAATTAAGGGA
GTTTCATCTTAGACCCGTTAATCAGACAGCCAGACCGAAGACAAAGCCAGAATCTTCGAAAGGCTGCGAAA
GTGCAAGTGGATGAACTAAAAGGAATACTGGCCTCCAGTAG
```



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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_018330 unedited  
 NGTCGGAATTTGTATACGACTCATATAGGCGGCCGCGNATTCGGCACGAGGGGAATACAC  
 AACCTCAAACAGCAACTGGAGCTTCTAGAGGAAGATAAAAAGGAATTGGAATTGAAATAT  
 CAGAATTTCTGAAGAGAAAAGCCAGAAATTTAAAGCACTCTGTTGATGAACTCCAGAAACGA  
 GTGAACCAAGTCTGAGAATTCAGTACCTCCACCACCTCCTCCTCCACCACCACTTCCCCT  
 CCACCTCCCAATCCTATCCGATCCCTCATGTCCATGATCCGAAACGATCCCACCCAGT  
 GGCAGTGGTGCTAAGAAAGAAAAGGCAACTCAACCAGAAAACAACCTGAAGAAGTCACAGAT  
 CTAAAGAGGCAAGCAGTTGAAGAGATGATGGATAGAATTAAGGAGGAGTTCATCTTAGA  
 CCCGTTAATCAGACAGCCAGACCAGCAAGCAAAAGCCAGAATCTTCGAAAGGCTGCGAAAGT  
 GCAGTGGATGAACTAAAAGGAATACTGGGGACACTTAACAAATCCACTAGTTCAAGAAGC  
 TAAAAATCCCTTGACCCTGAAAACAGTGAAGTGAAGTGAAGGATTTTTCGCTCGCAGA  
 AAGGTGACAGCAGAAGCAGATAGCAGTAGTCCAACCTGGGATATTAGCCACCTCAGAGTCC  
 AAATCCATGCCAGTGTGGGTTCTGTATCCAGTGAACAAAAACAGCCTTGAACAAGAAA  
 CTCTGGAGGCAGAATTAACAGCCCGTNCACCAACACCTGAGCCAGGTGAAAGGCCCC  
 GTANATTGGAAGGATGCACAAGTTTCAAGGTTACGTTTCAGCCTCCAGTAGCATTGGATG  
 CAGGAAAAATACATTGACGGTGAACAGCCGAACAGNTGTAGTTTTAGACCTGTTTTAC  
 ACTGAACCCAACC

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_018330 unedited  
 CGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTGGGAAATATTGGTGCCTTTTT  
 AATAAGTTGTGGTGAGGAGAGTTCAAATTACAGCATAACAGAATTCGTTTCGTGAATTA  
 TGCAGTCTGTAGTAAGCATATCATATAGCAGTATTATCCAGTTAAAGAAAGATACAGTTG  
 AAAACATTACGTTTTAATTCTCCATGAGTAAAGTATAAGTAACTATAAAATCATTATT  
 GGGAGAATGGAACAGTCAAGCATAACGAACCTACAGAAAGATAATTATCTCCAAATT  
 TAGGAAGTACATGTACCTGCCTACCCACCTCTCAAGCCTATGCTTACCACACGTGCAAA  
 AATACAATACAATACTACTGCAATTATTACTATCATTCTTTTGCCTTAGGTGAA  
 AAACACCTGACAGCTACATGCTGAGCCATGCTAACAAAACCTAAACCTTTCACTTTCTTTA  
 ATAGTAAAATTACCATTACTGAATCATTGTCATAAAAAGTGCATTCAAGTACATTACCAC  
 TTATTTTAAATAAACCAATTTTGAACAATCAACTTTGAAAAGCTGCATAAGTTTTTTT  
 TTTTAATCCCTGATTACATTTCTATTTTCACTGTGGTAGCCTGAAACATTGTATTTTT  
 AGAGACTAACTACTGCTTAATTTCTTTTTTAAAAAAAACAACAACAACTGTGTAATAT  
 AGAACAGCAGTGAAGCAAGANAATGTGTGCTTGTCACTTATCTTACCATACTGTACAT  
 AAGAACTCTGATAAATATGGTACTTGTGCCACATAGTATTTGGGAAAACATANTNACTCA  
 TGCACAGAGCCATGGGTTACCNACTACTACTGTAAAATCAGGGTNGGACTTTACCTCAGT  
 CTGGATTACAGCTACAGAGCATCCACGGAGGCCTCGGNAGCTTGGNACCATCAAGCTGNAT  
 TTTACCATAGTAACAG

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_018330

**Insert Size:**

2790 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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_018330.2, NP_060800.1</u>
<b>RefSeq Size:</b>	5047 bp
<b>RefSeq ORF:</b>	378 bp
<b>Locus ID:</b>	57698
<b>UniProt ID:</b>	<u>A0MZ66</u>
<b>Cytogenetics:</b>	10q25.3
<b>Gene Summary:</b>	<p>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]</p> <p>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.</p>