

Product datasheet for **RC223326**

SHTN1 (NM_018330) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	SHTN1
Synonyms:	KIAA1598; shootin-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



ORF Nucleotide Sequence: >RC223326 representing NM_018330
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGAACAGCTCGGACGAAGAGAAGCAGCTGCAGCTCATTACCACTCTGAAGGAGCAAGCAATAGGCGAAT
 ATGAAGACCTTAGAGCAGAGAACCAGAAAACAAAGGAGAAGTGTGACAAAATTAGGCAAGAACGAGATGA
 AGCCGTTAAAAAAGTGAAGAATTTTCAGAAAATTTCTCACATGGTCATAGAGGAAGTTAATTTTCATGCAG
 AACCATCTTGAAATAGAGAAGACTTGTGCGAAGTGTGAGCTTTGGCAACAAGCTAAATAAGAGAA
 AAAAAAGTTGAAAGAATCAGCATGTTGTACATGGCCAAGCTGGGACCAGATGTAATAACTGAAGAGAT
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 CAGAAGCAAAATTAAGAAGTTCGAGATCAAATTGTATCTGTTGAGGAGGAAAAGAAGATTTAGCCATTG
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 CCCTGATCAGCAGCTTTTGAAAGCTTTAGACGAAAATGCAAACTACCCAGCAACTTGAAGAAGAGAGA
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 ACAACCTCAAACAGCAACTGGAGCTTCTAGAGGAAGATAAAAAGGAATTGGAATTGAAATATCAGAATTC
 TGAAGAGAAAGCCAGAAATTTAAAGCACTCTGTTGATGAACTCCAGAAACGAGTGAACCAGTCTGAGAAT
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 TGTCCATGATCCGAAACGATCCACCCAGTGGCAGTGGTGCTAAGAAAGAAAAGGCAACTCAACCAGA
 AACAACCTGAAGAAGTCACAGATCTAAAGAGGCAAGCAGTTGAAGAGATGATGGATAGAATAAAAAGGGA
 GTTCATCTTAGACCGTTAATCAGACAGCCAGACCGAAGACAAAGCCAGAATCTTCGAAAGGCTGCGAAA
 GTGCACTGGATGAATAAAGGAATACTGGCCTCCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC223326 representing NM_018330
 Red=Cloning site Green=Tags(s)

MNSSDEEKQLQLITSLKEQAIGEYEDLRAENQKTEKCDKIRQERDEAVKKLEEFQKISHMVIEEVNFMQ
 NHLEIEKTCRESAEALATKLNKENKTLKRISMLYMAKLGPDVITEEINIDDEDSTTDGAAETCVSVQC
 QKQIKELRDQIVSVQEEKKILAELENLKSLEVEIEEVNKKVQKQKTVLNSEVLEQRKVLEKCNRVSMIA
 VEEYEEMQVNLLEKDLRKKAESFAQEMFIEQNKLKRQSHLLLQSSIPDQQLKALDENAKLTQQLEEEER
 IQHQKVKLEEEQLENETLHKEIHNKQQLLEEDKKELELKYQNSEEKARNLKHSVDELQKRVNQSEN
 SVPPPPPPPPPLPPPPPNPIRSLMSMIRKSHPSGSGAKKEKATQPETTEEVTDLKRQAVEEMMDRIKKG
 VHLRPVNQTARPKTPESSKGCESAVDELKGILASQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1312_a07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_018330

ORF Size: 1368 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.

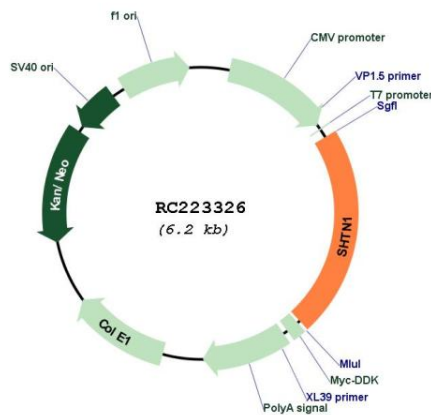
RefSeq: [NM_018330.7](#)

RefSeq Size: 3415 bp

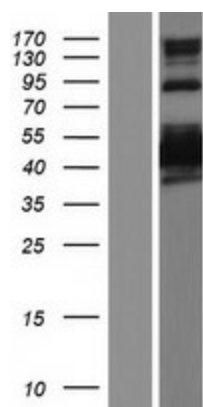
RefSeq ORF: 1371 bp
 Locus ID: 57698
 UniProt ID: [A0MZ66](#)
 Cytogenetics: 10q25.3
 MW: 52.5 kDa

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]

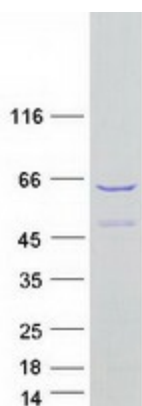
Product images:



Circular map for RC223326



Western blot validation of overexpression lysate (Cat# [LY413126]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223326 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SHTN1 protein (Cat# [TP323326]). The protein was produced from HEK293T cells transfected with SHTN1 cDNA clone (Cat# RC223326) using MegaTran 2.0 (Cat# [TT210002]).