

Product datasheet for **RN212914**

Shtn1 (NM_001079705) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Shtn1 (NM_001079705) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Shtn1
Synonyms:	RGD1311558; Shootin1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >RN212914 representing NM_001079705
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGC**

ATGAACAGCTCGGACGAGGAGAAGCAGCTGCAGCTCATCACCAGCTTGAAGGAACAAGCCATAGGCGAAT
 ATGAAGACCTTCGAGCAGAGAACCAGAAAACAAAGGAGACGTGTGACAAGATTAGGCAAGAACGAGATGA
 AGCTGTAAAGAACTGGAAGAGTTTCAGAAAATTTCTCATATGGTTATAGAGGAAGTAAATTTTCATGCAG
 AACACCTTGAGATAGAGAAGACATGCCGAGAGAGTGTGAGGCCTTGCGGACAAAGCTAAATAAAGAAA
 ATAAAACCTGAAAAGAATCAGCATGCTATACATGGCCAACTGGGGCCAGACGTAATAACAGAGGAGAT
 AAACATTGATGATGACGACCCAGGCACCGACACAGACGCCGCGGAGAGACCTGTGTGTCGTCCAGTGT
 CAGAAGCAAATCAAAGAATTCGAGATCAAATTGTGTCTGTTAGGAAGAAAAGAAAGTGTAGCCATTG
 AGCTGGAAGCCTCAAGAGCAAACCTCGGGAGGTGATGGAGGAGTAAATAAAGTTAAGCAAGAAAAGC
 TGTCTTGAATTCAGAAGTTCTTGAGCAGAGGAAAGTCTTAGAAAAATGCAACAGAGTGTCCGTGTTAGCC
 GTCGAGGAGTATGAGGAGCTACAGGTGAACCTGGAGCTGGAGAAGGACCTTCGCAAGAAGGCAGAGTCTT
 TTGCACAAGAGATGTTTCATTGAACAAAACAAGCTGAAGAGACAAAGCCACCTTCTGCTGCAGAGCTCCCT
 TCCTGACCAGCAGCTTCTGAAAGCTTTAGATGAAAATGCAAACTTATCCAGCAGCTTGAAGAAGAGAGG
 ATCCAGCATCAGCAAAAGGTCAAAGAGTTAGAGGAACGGCTAGAGAATGAAGCGCTTCACAAAGAGATCC
 ACAACCTCAGACAACAGCTGGAGCTTCTGGAGGATGACAAGAGAGAGCTGGAGCAGAAATACCAGAGCTC
 GGAGGAAAAGGCCCGAACCTGAAGCATTAGTGGACGAACTCCAGAAGCGAGTGAATCAGTCGGAGAAT
 TCGGTGCCTCCCCCGCTCCTCCTCCTCCACCTTCCACCTCCGCTCCCAATCCAATCCGGTCCCTCA
 TGTCATGATCCGGAAGCGATCCACCCAGTGGCGGTAGCACTAAGAAGGAAAAGGCAACTCAGCCAGA
 GACAGCTGAGGAAGTCACAGACCTGAAGAGGCAAGCAGTGGAAAGAGATGATGGACAGAATTAAGGGA
 GTTCATCTTAGACCAGTTAACCAGACAGCCAGACCCAAGGCAAGGCCAGACTCTCTAAAGGGCTCAGAAA
 GTGCAGTGGATGAAGTGAAGGAATCCTGGGACACTTAACAAATCCACTAGTTCGAGAAGCTTAAATC
 CCTTGGCCCTGAGAACAGTGAAGTGAAGTGAAGAGGATTTACGCCGAGAAAGCTGACAGCAGAAAGCA
 GATAGCAGTAGTCTACCGGATATTAGCCACCTCAGAGTCCAAGTCCATGCCAGTGTGGGTTCTGTAT
 CCAGTGTAAACAAATCAGCCTTGAACAAGAAAACCTCTGGAGGCAGAAATTAACAATCCGTGTCCCCTAAC
 ACCTGAGCCAGGTGAAGGGCCCCGTAATTTGAAGGATGCACGAATTCAGGTTACCTTTCAGCCTCCC
 AGTAAAGTGGATACAGGAGAAAATGTGTGGGCAGTGAACACAGTCTGAGCCGTTGTAGTTTTAGATC
 CTGTTTCTACACATGAACCCCAACCAAGACAGGCTGCTGAGAAAGACCAACCAATGCAAGGAGGA
 GGAGAGAGGCGAAACACAACCAAGATTCAAAGAAGACAGCAGTGGTGGAAAAACGGGAGAGACGGACAGT
 TCTAAGCT**GA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-MluI

ACCN: NM_001079705

Insert Size: 1902 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:	<u>NM_001079705.4, NP_001073173.2</u>
RefSeq Size:	3614 bp
RefSeq ORF:	1902 bp
Locus ID:	292139
UniProt ID:	<u>A0MZ67</u>
Cytogenetics:	1q55
Gene Summary:	Involved in the generation of internal asymmetric signals required for neuronal polarization and neurite outgrowth (PubMed:17030985, PubMed:17439943, PubMed:18519736, PubMed:20664640). 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 (PubMed:18519736, PubMed:23453953). Plays a role in cytoskeletal organization by regulating the subcellular localization of phosphoinositide 3-kinase (PI3K) activity at the axonal growth cone (PubMed:17030985). Plays also a role in regenerative neurite outgrowth (PubMed:20664640). 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 (By similarity).[UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1, also known as shootin 1b).