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Product datasheet for MC216162

Shtn1 (NM_175172) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Shtn1 (NM_175172) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Shtn1
Synonyms:	4930506M07Rik; Kiaa1598; mKIAA1598; Shootin1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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Fully Sequenced ORF:

>MC216162 representing NM_175172
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAACAGCTCGGACGAGGAGAAGCAGCTGCAGCTCATCACCAGCTTGAAGGAGCAAGCCATTGGCGAAT
ATGAAGACCTTCGAGCAGAGAACCAGAAAACAAAGGAGAAGTGTGACAAAATTAGGCAAGAACGAGATGA
AGCTGTTAAAAAACTGGAAGAGTTTCAGAAAATTTCACATATGGTTATAGAGGAGGTGAATTTCATGCAG
AACCATCTTGAAATAGAGAAGACATGTCGAGAGAGCGCTGAAGCCTTGGCGACAAAGCTAAATAAAGAAA
ATAAAACACTGAAAAGAATCAGCATGCTATACATGGCCAAACTGGGGCCAGACGTAATTACAGAGGAGAT
AAACATTGATGATGATGACCCAGCCACCGACACAGATGCTGCGGCTGAGACCTGTGTGTCTGTTCAGTGT
CAGAAGCAAATCAAAGAACTTCGAGATCAAATTGTGTCTGTTCAGGAAGAAAAGAAGGTGTTAGCCATCG
AGCTGGAAAACCTCAAGAGCAAACTCGGGGAGGTGATGGAGGAGGTAAATAAAGTTAAGCAAGAAAAAGC
TGTTTTAAATTCAGAAGTCCTTGAGCAGAGGAAAGTCTTAGAAAAATGCAACAGAGTGTCCATGTTGGCT
GTTGAAGAGTATGAGGAACTGCAAGTGAACCTGGAACTGGAGAAGGACCTTCGCAAGAAAGCAGAGTCTT
TTGCACAAGAGATGTTCATTGAACAAAACAAACTGAAGAGACAAAGCCACCTTCTGCTGCAGAGCTCCCT
TCCTGACCAGCAGCTTTTGAAAGCTTTAGACGAAAACGCAAAACTTATCCAGCAGCTTGAAGAAGAGAGG
ATCCAGCATCAGAAAAAGGTCAAAGAGCTGGAGGAGCGGCTGGAGAATGAAGCACTTCACAAAGAGATCC
ATAACCTCAGACAACAGCTGGAGCTTCTGGAAGACGACAAGAGGGAGCTAGAGCAGAAATACCAGAGCTC
GGAGGAGAAGGCCCGGAACCTGAAGCATTCAGTGGATGAACTTCAGAAGCGAGTGAACCAGTCTGAGAAT
TCGGTACCTCCCCCGCCTCCTCCTCCTCCACCTCTCCCCCCTCCACCTCCCAATCCAATCCGGTCCCTCA
TGTCTATGATCCGGAAGCGATCTCACCCCAGTGGCAATAGTGCTAAGAAAGAAAAGACAACTCAGCCAGA
GACAGCTGAGGAAGTCACAGACCTGAAGAGGCAAGCAGTGGAAGAGATGATGGACAGAATTAAGAAGGGA
GTTCATCTTAGACCGGTTAACCAGACAGCCAGACCCAAGGCAAAGCCAGACTCTCTCAAGGGCTCAGAAA
GTGCGGTGGATGAGCTGAAGGGAATCCTGGCCTCCCAGTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_175172

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).

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_175172.4, NP_780381.1
RefSeq Size:	3767 bp
RefSeq ORF:	1371 bp
Locus ID:	71653
UniProt ID:	Q8K2Q9
Cytogenetics:	19 D2- D3
Gene Summary:	Involved in the generation of internal asymmetric signals required for neuronal polarization and neurite outgrowth (PubMed:23864681). 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 (By similarity). 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 (PubMed:23864681). Involved in the accumulation of phosphatidylinositol 3,4,5-trisphosphate (PIP3) in the growth cone of primary hippocampal neurons (PubMed:23864681). [UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (2) differs in the 3' UTR and has multiple coding region differences, compared to variant 1, one of which results in a frameshift. The resulting isoform (2, also known as shootin 1a) is shorter with a distinct C-terminus compared to isoform 1. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.