

Product datasheet for MR201727

Nsg1 (NM_010942) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nsg1 (NM_010942) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nsg1
Synonyms:	m234; Neep21; p21
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR201727 representing NM_010942 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGCATCGCC

ATGGTGAAGTTGGGAATAATTTTCGAGAGAAGGGCACCAAGCAGCCACTGCTGGAGGATGGCTTCGACA
CCATTCCTTTGATGACGCCCCCTCGATGTCAACCAGCTGCAGTTCCCACCCCAGATAAGGTCGTGGTGAA
AACTAAGACTGAATATGAACCTGATCGAAAAAAGGAAAAGCACGTCTCCCAAGATAGCCGAGTTCACC
GTCAGCATCACCAGGGTGTACCGAGAGGTTTAAGGTCTCCGTGCTGGTCTCTTGCCTGGCCTTCC
TCACCTGTGCTCTTCTGTTGTCTACAAAGTGTACAAGTATGACCGCGCCTGCCCTGATGGGTTTGT
CTTGAAGAACACCCAGTGCATCCAGAAGGCTTGAGAGCTACTACACGGAGCAAGACTCCAGTGCCCGG
GAGAAATTTTACTGTGATACCACTACAACGTGGCCAAGCAGAGCATCACCCGCTCCGTGTGCCAT
GGATGTGAGTTCTGTGAGAAGAGAAGCTGTGGAACAGGAGACCGAAGCTGCAGAGAAGTCAGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>MR201727 representing NM_010942 Red=Cloning site Green=Tags(s)
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MYKLGNNFAEKGTKQPLLEDGFDTIPLMTPLDVNQLQFPPDPKVVKTKTEYEPDRKKGKARPPKIAEFT
VSITEGVTFRKVSFLVLFALFLTCVFLVVKYKYDRACPDGFVLKNTQCIPEGLESYYTEQDSSAR
EKFYTVINHYNVAKQSITRSVSPWMSVLSEEKLSQETEEAEKSA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:	SgfI-MluI
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Cloning Scheme:



ACCN: NM 010942

ORF Size: 555 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_010942.4](#)

RefSeq Size: 2140 bp

RefSeq ORF: 558 bp

Locus ID: 18196

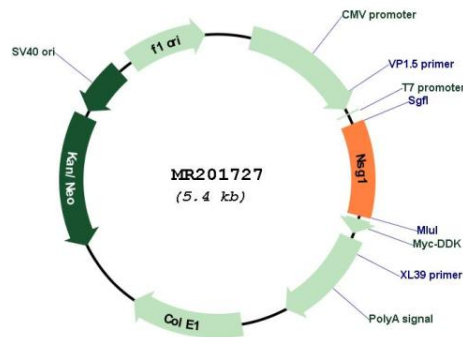
UniProt ID: [Q62092](#)

Cytogenetics: 5 20.21 cM

MW: 21.4 kDa

Gene Summary: Plays a role in the recycling mechanism in neurons of multiple receptors, including AMPAR, APP and L1CAM and acts at the level of early endosomes to promote sorting of receptors toward a recycling pathway (PubMed:15187090, PubMed:12070131, PubMed:21084623, PubMed:16037816). Regulates sorting and recycling of GRIA2 through interaction with GRIP1 and then contributes to the regulation of synaptic transmission and plasticity by affecting the recycling and targeting of AMPA receptors to the synapse (PubMed:16037816). Is required for faithful sorting of L1CAM to axons by facilitating trafficking from somatodendritic early endosome or the recycling endosome (By similarity). In an other hand, induces apoptosis via the activation of CASP3 in response to DNA damage (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR201727