

Product datasheet for **MG208351**

Snx1 (NM_019727) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Snx1 (NM_019727) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Snx1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG208351 representing NM_019727
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCGTCAGGAGGTGGTGGCTGTAGCGCTTCGGAGCGACTCCCTCCGCCCTTCCTGGCATGGATCCGG
 AGTCGGAAGGGGCTGCCGGGGGTCAGAACCCGAGGCTGGGGACAGCGACACCGAGGGGAGGATATTTT
 CACTGGCGCCGCGGCAGCCACTAAGCCCCAGTCTCCAAAGAAAACCACATCCCTTTTTCTATCAAAAAAT
 GTTTCCAAAGAGAATGGGATCCATGAGGACCAAGACCAAGAGCCACAGGATCTCTTTGCAGATGCCACAG
 TGGAACTATCCCTGGACAGCACACAGAATAACCAGAAGACAATGCCAGGCCAAAACCCCTTACTTCTCATCC
 TCCGCAAGAAGCCACAAATTCTCCGAAGCCACAGCCAAGCTATGAGGAGCTGGAGGAAGAACAGGAGGAT
 CAGTTTGTATTTGACAGTTGGTATCACCGATCCTGAGAAGATCGGGGATGGTATGAATGCCTATGTAGCCT
 ACAAAGTCACCACACAGACAAGCTTACCGATGTTTCCAGAAGTAGGCAGTTTGCAGTAAAAGAAGATTCAG
 TGACTTCTGGGCTTTTATGAGAAGCTTTCAGAGAAGCACTCCCAAGATGGTTTTCATTGTGCTCCTCCCA
 CCCGAGAAGAGCCCTAATAGGAATGACAAAGGTGAAGGTTGGGAAGGAAGATTCTTCTCCGAGAGTTTC
 TTGAGAAAACGGAGGGCTGCTTTGGAAAAGGTACCTTCAAAGAATTGTGAATCATCCACCATTGTTACAGGA
 CCCAGATGTACAGGGAGTTTCTGGAAAAAGAAGAGCTGCCTCGAGCTGTGGGCACGCAGGCTTTGAGTGGC
 GCTGGTCTCCTTAAGATGTTCAACAAAGCTACAGATGCAGTCAGCAAAATGACCATCAAGATGAATGAAT
 CAGACATTTGGTTCGAGGAGAACTCCAGGAGGTAGAGTGTGAGGAGCAGCGCCTACGGAAGCTGCATGC
 TGTGGTGGAGACTCTAGTCAACCATAGGAAAGAACTAGCGCTGAACACAGCCCTGTTTCCAAGAGTCTA
 GCCATGCTTGGGAGCTCCGAGGACAACACAGCACTTTCTCGAGCGCTCTCCCAACTGGCTGAGGTGGAAG
 AAAAGATTGAGCAGCTCCACCAGGAACAGGCCAACAAATGACTTCTCTCCTTGTGAATCCTCTGAGTGA
 CTATATTCGCCTCTGGCCATTGTCCGAGCTGCCTTCGACCAGCGCATGAAGACATGGCAGCGCTGGCAG
 GATGCTCAAGCCACGCTGCAAGAAGAAGCGGAGTCTGAGGCACGCTGCTGTGGGCAACAAAGCCTGACA
 AACTGCAGCAGGCTAAGGATGAGATCACAGAGTGGGAATCTCGGGTACTCAGTATGAAAGGGACTTTGA
 AAGGATTTCCACAGTTGTCCGAAAGGAAGTGACACGATTTGAGAAAGAGAAGTCCAAGGATTTCAAAAAAC
 CACGTGATGAAGTACCTGGAGACACTCTACATTCACAGCAGCAGCTGGCAAAATACTGGGAAGCCTTCC
 TTCCTGAGGCAAAGGCCATCTCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG208351 representing NM_019727
 Red=Cloning site Green=Tags(s)

MASGGGCSASERLPPFPFGMDPESEGAAGGSEPEAGDSDEGEDIFTGAAAATKPQSPKTTSLFPIKN
 GSKENGIHEDQDQEPQDLFADATVELSLDSTQNNQKTMFGKTLTSHPPQEATNSPKPQPSYEELEEEQED
 QFDLTVGITDPEKIGDGMNAYVAYKVTTQSLPMFRSRQFVAVKRRFSDFLGLYEKLSKHSQNGFIVPPP
 PEKSLIGMTKVKVKGEDSSSAEFLEKRRALERYLQRIVNHPTMLQDPDVREFLEKEELPRAVGTQALSG
 AGLLKMFNKATDAVSKMTIKMNESDIWFEEKLEVECEEQRLRKLHVVETLVNHRKELALNTALFAKSL
 AMLGSSEDNTALSRALSQLAEEVEEKIEQLHQEQANNDFFLLAELLSDYIRLLAIVRAAFDQRMKTQWRWQ
 DAQATLQKKRESEARLLWANKPKLQQAQKDEITEWESRVTQYERDFERISTVVRKEVTRFEKEKSKDFKN
 HVMKYLELLHSQQQLAKYWEAFLPEAKAIS

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



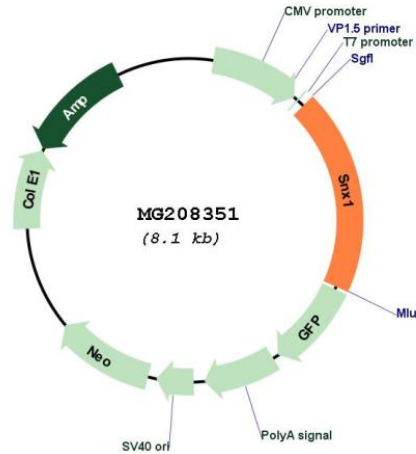
```

          Kozac
          Consensus
          SgfI  AscI
          -----
EcoRI   BamHI KpnI  RBS
CTATAGGGCGGCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGCCAGATCT

HindIII  NheI  RsrII  MluI      NotI  XhoI      GFP Tag
CAAGCTTAAGCTAGCTAGCGGACCG  ACG CGT  ACG CGG  CCG CTC GAG  ATG GAG  AGC GAC  --- -- --
                                     T  R  T  R  P  L  E      M  E  S  D  -  -  -

PmeI  FseI
--- -- GAA GAA AGA GTT TAA  ACGGCCGGCCGGAGCT
- - - E  E  R  V  Stop
  
```

Plasmid Map:



ACCN: NM_019727

ORF Size: 1563 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.

RefSeq: [NM_019727.2](#), [NP_062701.2](#)

RefSeq Size: 2079 bp

RefSeq ORF: 1566 bp

Locus ID: 56440

UniProt ID: [Q9WV80](#)

Cytogenetics: 9 C

Gene Summary: Involved in several stages of intracellular trafficking. Interacts with membranes containing phosphatidylinositol 3-phosphate (PtdIns(3P)) or phosphatidylinositol 3,5-bisphosphate (PtdIns(3,5)P2). Acts in part as component of the retromer membrane-deforming SNX-BAR subcomplex. The SNX-BAR retromer mediates retrograde transport of cargo proteins from endosomes to the trans-Golgi network (TGN) and is involved in endosome-to-plasma membrane transport for cargo protein recycling. The SNX-BAR subcomplex functions to deform the donor membrane into a tubular profile called endosome-to-TGN transport carrier (ETC). Can sense membrane curvature and has in vitro vesicle-to-membrane remodeling activity. Involved in retrograde endosome-to-TGN transport of lysosomal enzyme receptors (IGF2R, M6PR and SORT1). Plays a role in targeting ligand-activated EGFR to the lysosomes for degradation after endocytosis from the cell surface and release from the Golgi. Involvement in retromer-independent endocytic trafficking of P2RY1 and lysosomal degradation of protease-activated receptor-1/F2R. Promotes KALRN- and RHOG-dependent but retromer-independent membrane remodeling such as lamellipodium formation; the function is dependent on GEF activity of KALRN. Required for endocytosis of DRD5 upon agonist stimulation but not for basal receptor trafficking (By similarity).[UniProtKB/Swiss-Prot Function]