

## Product datasheet for **MG210834**

### Sort1 (NM\_019972) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Sort1 (NM_019972) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Sort1
Synonyms:	2900053A11Rik; AI852375; Ntr3; Ntsr3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide  
Sequence:**

>MG210834 representing NM\_019972  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGCGGCCCGGGGAGCTGCGGACGGCCTTTTTCGCTGGCCCTCGCCTCCTCTGCTCCTTCAAC  
 TGCTGCCTCCTGCCGCCGTCGGCCAGGACCGGCTGGACGCGCCGCGCCCGCCGCGCTCCTCTGCTGCG  
 CTGGGCGCGTCCGGTTCGGGTGAGCTGGGGCTGCGCGCCGCGCGCCGGGGGCCCCGTCCTCCCGCGCT  
 GGCCGTTGGCGCCGCGCGCCGCCGAGGACCAAGACTGCGGCCGCTCCCGACTTCATCGCCAAGC  
 TGACCAACAATACGCACCAGCATGTCTTTGATGACCTCAGTGGCTCAGTGTCTTGTCTGGGTTGGAGA  
 CAGCACTGGGGTTATTCTCGTCTGACCCTTTCCAAGTGCCTCTGGTAATTGTGAGCTTTGGACAGTCC  
 AAGTTGTATCGAAGTGAAGATTATGAAAGAATTTAAGGATATTACAAATCTCATCAATAACACCTTCA  
 TTCGGACGGAATTTGGCATGGCTATTGGTCTGAGAACTCTGAAAGGTGATACTAACAGCGGAGGTGTC  
 CGGGGGAAGCCGAGGCGGAAGAGTGTTCAGGTCATCAGACTTTGCCAAGAATTTGTGCAACAGATCTC  
 CCCTTTCATCCTCTGACGCAGATGATGTACAGCCCTCAGAATTCGATTACCTGTAGCTCTCAGCACCG  
 AAAATGGCCTGTGGGTGTCCAAGAATTTGGGGAAAAATGGGAAGAAATCCACAAAGCAGTATGTTTGGC  
 CAAATGGGGACCAAAACAATCATCTTCTTTACCACCCATGTGAATGGCTCCTGCAAAGCTGATCTTGGT  
 GCCCTGGAATTATGGAGAATCCGACTTGGGAAAAACCTTCAAACCATTTGGTGTGAAAATCTACTCCT  
 TTGGTCTTGGGGCCGTTTCTTTTTCCTCTGTGATGGCTGATAAGGACACAACAAGAAGGATCCATGT  
 GTCAACAGACCAGGGGACACATGGAGCATGGCACAATTCCTTCTGTGGGACAGGAACAGTTCTACTCC  
 ATCCTGGCAGCCAATGAGGACATGGTCTTCATGCATGTAGATGAACCTGGAGATACCGGGTTTGGCACCA  
 TCTTTACCTCTGATGATCGAGGCAATGTCTCAAGTCTCTGGACAGACATCTATACCACCACAGG  
 CGGGGAGACGGACTTTACCAACGTGACTTCCTCCGTGGGGTCTATATAACAAGCACGCTCTCAGAAGAT  
 AACTCTATTACAGCATGATCACTTTTACCAGGAGGACGGTGGGAGCACCTGCGGAAGCCGGAGAACA  
 GCAAGTGCAGCTACCGCAAAGAACAAGAACGAGTGCAGCCTTCATATCCATGCTTCTTATAGCATCTC  
 CCAGAAGCTAAACGTTCCAATGGCCCACTTTCCGAGCCAATGCTGTGGGCATAGTCATCGCTCACGGT  
 AGTGTGGGAGATGCCATCTCGGTGATGGTCCCAGATGTGTACATCTCAGATGATGGGGTTACTCCTGGG  
 CGAAGATGCTAGAAGGACCATACTATACCATCCTGGACTCTGGAGGCATCATTGTGGCCATTGAGCA  
 CAGCAACCGTCTATCAATGTGATTAAGTTCTCCACAGATGAAGGCCAGTCTGGCAGAGCTATGTGTT  
 ACACAGGAGCCCTACTTCACTGGGCTTGCTTCCGAGCCTGGAGCCAGGTCCATGAACATCAGCATCT  
 GGGGATTCACAGAGTCTTTCATTACCCGCCAGTGGGTCTCCTACACAGTCGATTTCAAAGACATCCTTGA  
 GCGGAATTGTGAAGAGGATGACTATACCAGTGGCTGGCACACTCCACAGACCCTGGAGATTACAAAGAC  
 GGCTGCATTTTGGGCTATAAAGAACAGTTCCTACGGCTACGGAAGTCATCCGTCTGTGAGATGGTCGAG  
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 CTTCCGTCGGGAGAACGCTCAGAGTGGTGGAGCAGCCTGAACTGAAGGGGCATGAGTTAGAGTTCTGT  
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 GGATGAATCCCAGCAGAGAAGTAAAAGACTTAAAAAGAAATGCACAAGCAACTTCTTGAACCCACAAA  
 GCAGAATTCAAAGTCAAATTCGTCCCTATTATCCTGGCCATCGTGGGACTGATGCTTGTACACAGTGT  
 GCAGGAGTCTCATTGTGAAGAAATATGTCTGTGGCGGAAGTTCTGGTGCACCGGTAATCGGTGCTAC  
 AGCAGCACGCAGAGGCTGACGGCTAGAGGCTTTGGATTCAACCTCCACGCTAAAAGCGGATATCACGA  
 CGACTCAGATGAGGACCTCTGGAA

**ACGGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:** >MG210834 representing NM\_019972  
 Red=Cloning site Green=Tags(s)

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MERPRGAADGLLRWPLGLLLLLQLLPPAAVGQDRLDAPPPPAPLLRWAGPVGVSWGLRAAAPGGPVVRA
GRWRRGAPAEDQDCGRLPDFIAKLTNNTHQHVFDDLSGSVLSWVG DSTGVILVLTTFQVPLVIVSFGQS
KLYRSEDYGKNFKDITNLINNTFIRTEFGMAIGPENSGKVILTAEVSGGSRGGRVFRSSDFAKNFVQTDL
PFHPLTQMMYSPQNSDYLLALSTENGLWVSKNFGEKWEEIHKAVCLAKWGPNNIIFFTTHVNGSCKADLG
ALELWRTSDLGKTFKTIQVKIYSFGLGGRFLFASVMADKDTTRRIHVSTDQGD TWSMAQLPSVGQE QFYS
ILAANEDMVMHVDEPGDTGFGTIFTSDDRGIVYKSLDRHLYTTTGGETDFTNVTSLRGVYITSTLSED
NSIQSMITFDQGGWEHLRKPENSKCDATAKNKNECSLHIHASYISQKLNVPMAPLSEPNVAGIVIAHG
SVGDAISVMVPDYVISDDGGYSWAKMLEGPHYITLDSGGIIVAIEHSNRPINVIK FSTDEGQCWQSYVF
TQEPIYFTGLASEPGARSMNISIWGFTESFITRQWVSYTVDFKDILERNCEEDDYTTWLAHSTDPGDYKD
GCILGYKEQFLRLRKSSVCQNGRDYVVAKQPSVPCSLDFLCDFGYFRPENASECQEPELKGHELEFC
LYGKEEHLTTNGYRKIPGDKCQGGMNPAREVKDLKKKCTSNFLNPTKQNSKNSVPIILAIVGLMLVTVV
AGVLIVKKYVCGGRFLVHRYSVLQQHAEADGVEALDSTSHAKSGYHDDSDEDLLE
  
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TRTRPLE - GFP Tag - V

**Restriction Sites:** Sgfl-MluI



**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_019972.3](#), [NP\\_064356.2](#)

**RefSeq Size:** 6851 bp

**RefSeq ORF:** 2478 bp

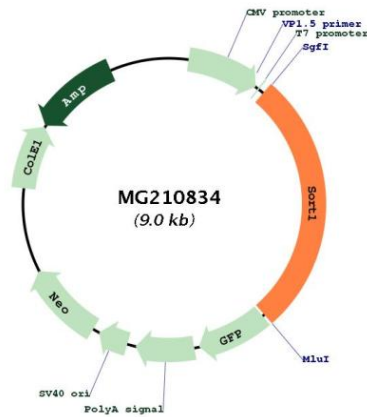
**Locus ID:** 20661

**UniProt ID:** [Q6PHU5](#)

**Cytogenetics:** 3 F3

**Gene Summary:**

Functions as a sorting receptor in the Golgi compartment and as a clearance receptor on the cell surface. Required for protein transport from the Golgi apparatus to the lysosomes by a pathway that is independent of the mannose-6-phosphate receptor (M6PR). Also required for protein transport from the Golgi apparatus to the endosomes. Promotes neuronal apoptosis by mediating endocytosis of the proapoptotic precursor forms of BDNF (proBDNF) and NGFB (proNGFB). Also acts as a receptor for neurotensin. May promote mineralization of the extracellular matrix during osteogenic differentiation by scavenging extracellular LPL. Probably required in adipocytes for the formation of specialized storage vesicles containing the glucose transporter SLC2A4/GLUT4 (GLUT4 storage vesicles, or GSVs). These vesicles provide a stable pool of SLC2A4 and confer increased responsiveness to insulin. May also mediate transport from the endoplasmic reticulum to the Golgi.[UniProtKB/Swiss-Prot Function]

**Product images:**

Circular map for MG210834