

Product datasheet for **MG211885**

Npc1 (NM_008720) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Npc1 (NM_008720) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Npc1
Synonyms:	A430089E03Rik; C85354; D18Ertd139e; D18Ertd723e; lcsd; nmf164; spm
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG211885 representing NM_008720 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGTGCGCACCCCGGCCCTCGGCCTGCTGCTGCTGCTGCTGCTGCCCTGCGCAGGTGTTTTCGCAAT
CCTGTGTTTGGTATGGAGAGTGTGGAATTGCGACTGGAGATAAGAGGTACAACCTGTAATATTCTGGCCC
ACCAAACCCCTCCAAAGGACGGCTATGACTTAGTGCAGGAACCTGTCCAGGACTCTTCTTTGACAAT
GTCAGTCTCTGCTGTGACATTCAACAGCTTCAGACGCTGAAGAGTAACCTGCAGCTGCCCTGCAGTTCC
TGTCAGGTGTCGGTCATGTTTTATAACCTAATGACCCTGTTTTGTGAGCTAACATGTAGCCACACCA
GAGTCAGTTTCTGAATGTGACAGCAACTGAGGATTATTTTGATCCTAAGACACAGGAGAATAAAACAAT
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GATCTTCAATCCTTGGGATGGAGCCCATGAGAAATGCCACAAAGGCTGCAATGAGTCTGTAGATGAGG
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TATGCCCTGGAGGATCTGGGCTTGGATGCCATGTATGTCATCATGTGGGTACCTACGTGGCATTCTGT
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AGCCATGCGGTGCTGGACAGCCAAGTAGGCGACGACTTCTATATCTACGCTGATTACCACACACTTTT
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ACCACTTACGAGCGCTACAGAGGGACAGAGAGAAAAACGGCTCCTCAATTTT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG211885 representing NM_008720
 Red=Cloning site Green=Tags(s)

MGAAHPALGLLLLLCPAQVFSQSCVWYGEIGIATGDKRYNCKYSGPPKPLPKDGYDLVQELCPGLFFDN
 VSLCCDIQQQLTLKSNLQLPLQFLSRCPSCFYNLMTLFCELTCSPHQSQFLNVTATEDYFDPKTQENKTN
 VKELEYFVGQSFANAMYACRDVEAPSSNEKALGLLCGRDARACNATNWEYMFNKDNGQAPFTIIPVFS
 DLSILGMEPMRNATKGCNEVDEVDTGPCSCQDCSIVCGPKPQPPPPMPWRIWGLDAMYVIMWVTVVAF
 FVFFGALLAVWCHRRRYFVSEYTPIDSNIAFSVNSSDKGEASCCDPLGAAFDDCLRRMFTKWGAFVVRNP
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 EPYPAGADVFPFPLNKEILHQVLDLQIAIESITASYNNETVTLQDQICVAPLSPYNKNTIMSVLNIFYQN
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 DFLLQITCFVSLGLDIKRQEKNHLDILCCVRGADDGQGSASESYLFRFFKNYFAPLLKDWLRPIVVA
 VFVGVLSFSVAVVNKVDIGLDQSLMPNDSYVIDYFKSLAQYLHSGPPVYFVLEEYNYSSRKGQNMVCG
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 TDAMKARLIASNITETMRSGSDYRVFPYSVFYVFEQYLTIIIDDTIFNLVSLGSIPLVTLVVLGCEL
 WSAVIMCITIAMILVNMFGVMWLWGISLNAVSLVNLVMSCGISVEFCSHITRAFTMSTKGSRSVRAEEL
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 TTYERYRGTERRLLNF

TRTRPLE - GFP Tag - V

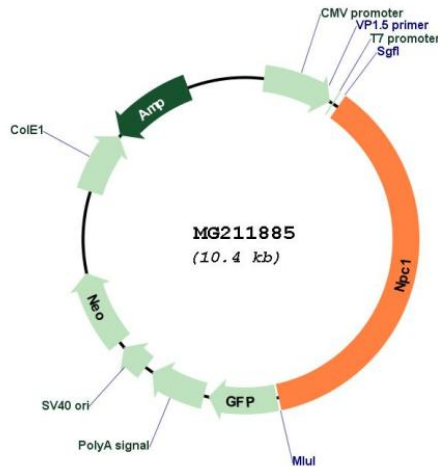
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_008720

ORF Size: 3831 bp

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 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_008720.2](#), [NP_032746.2](#)

RefSeq Size: 5209 bp

RefSeq ORF: 3834 bp

Locus ID: 18145

UniProt ID: [O35604](#)

Cytogenetics: 18 6.15 cM

Gene Summary: Intracellular cholesterol transporter which acts in concert with NPC2 and plays an important role in the egress of cholesterol from the endosomal/lysosomal compartment (PubMed:21896731, PubMed:22048958, PubMed:27551080). Unesterified cholesterol that has been released from LDLs in the lumen of the late endosomes/lysosomes is transferred by NPC2 to the cholesterol-binding pocket in the N-terminal domain of NPC1. Cholesterol binds to NPC1 with the hydroxyl group buried in the binding pocket (By similarity). May play a role in vesicular trafficking in glia, a process that may be crucial for maintaining the structural and functional integrity of nerve terminals (Probable).[UniProtKB/Swiss-Prot Function]