

Product datasheet for **RG200707**

NAGA (NM_000262) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NAGA (NM_000262) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NAGA
Synonyms:	D22S674; GALB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG200707 representing NM_000262 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTGCTGAAGACAGTCTCTTGGCTGGGACATGTGGCCAGGTGCTGATGCTGGACAATGGGCTCCTGC
AGACACCACCCATGGGCTGGCTGGCTGGGAAACGCTTCCGCTGCAACATTAAGTGTGATGAGGACCCAAA
GAACTGCATAAGTGAACAGCTCTTCATGGAGATGGCTGACCGGATGGCACAGGATGGATGGCGGGACATG
GGCTACACATACCTCAACATTGATGACTGCTGGATCGGTGGTCCGATGCCAGTGGCCGCTGATGCCAG
ATCCCAAGCGCTCCCTCATGGCATTCTTTCCTGGCTGACTACGTTCACTCCCTGGGCTGAAGTTGGG
TATCTACGCGGACATGGGCAACTTCACCTGCATGGGTTACCCAGGCACCACACTGGACAAGTGGTCCAG
GATGCTCAGACCTTCGCCGAGTGAAGGTAGACATGCTCAAGCTGGATGGCTGCTTCTCCACCCCGAGG
AGCGGGCCAGGGGTACCCCAAGATGGCTGCTGCCCTGAATGCCACAGGCCGCCCATCGCCTTCTCCTG
CAGCTGGCCAGCCTATGAAGGCGGCTCCCCCAAGGGTGAACACAGTCTGCTGGCGGACATCTGCAAC
CTCTGGCGTAACTATGATGACATCCAGGACTCTGGTGGAGCGTCTCCATCTGAATTGGTTCTGTTG
AGCACCAGGACATACTGCAGCCAGTGGCCGGCCCTGGGCACTGGAATGACCCTGACATGCTGCTCATTGG
GAACTTTGGTCTCAGCTTAGAGCAATCCCGGGCCAGATGGCCCTGTGGACGGTCTGGCAGCCCCCTC
TTGATGTCCACAGACCTCGTACCATCTCCGCCAGAACATGGACATTCTGCAGAATCCACTCATGATCA
AAATCAACCAGGATCCCTTAGGCATCCAGGGACGAGGATTCACAAGGAAAAATCTCATCGAAGTGTA
CATGCGGCTCTGTCCAACAAGGCTAGCGCCTTAGTCTTCTCAGCTGCAGGACCGATATGCCTTATCGC
TACCACTCTCCCTGGCCAGCTGAACTTCACCGGTCTGTGATATATGAGGCCAGGACGCTACTCAG
GTGACATCATCAGTGGCCTCCGAGATGAAACCACTTCACAGTATCATCAACCTTCAGGGGTAGTGAT
GTGGTACCTGTATCCCATCAAGAACCTGGAGATGTCCAGCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG200707 representing NM_000262
 Red=Cloning site Green=Tags(s)

MLLKTVLLLGHVAQVLM LDNGLLQTPPMGWLAWERFCNINCDDEPKNCISEQLFMEMADRMADGWRDM
 GYTYLNIDDCWIGGRDASGR LMPDPKRFPHGIPFLADYVHSLGLKLG IYADMGNFTCMGYPGTTLDKVVQ
 DAQTFAEWKVDMLKLDGCFSTPEERAQGYPKMAAALNATGRPIAFSCSWPAYEGGLPPRVNYSLLADICN
 LWRNYDDIQDSWWSVLSILNWFVEHQDILQPVAGPGHWNDPDMLLIGNFGLSLEQSRQALWTVLAAPL
 LMSTDLRTISAQNMDILQNPLMIKINQDPLGIQGRRIHKESLIEVYMRPLSNKASALVFFSCRTPMPYR
 YHSSLGQLNFTGSIYEADVYSGDIISGLRDETNFTVIINPSGVMMWYLYPIKNLEMSQQ

TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000262

ORF Size: 1233 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_000262.1](#), [NP_000253.1](#)

RefSeq Size: 3598 bp

RefSeq ORF: 1236 bp

Locus ID: 4668

UniProt ID: [P17050](#)

Cytogenetics: 22q13.2

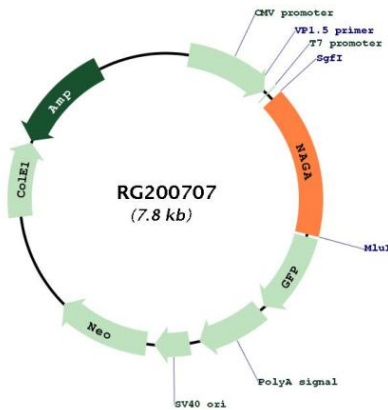
Domains: Melibiase

Protein Families: Druggable Genome

Protein Pathways: Glycosphingolipid biosynthesis - globo series, Lysosome

Gene Summary: NAGA encodes the lysosomal enzyme alpha-N-acetylgalactosaminidase, which cleaves alpha-N-acetylgalactosaminyl moieties from glycoconjugates. Mutations in NAGA have been identified as the cause of Schindler disease types I and II (type II also known as Kanzaki disease). [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG200707