

Product datasheet for **RC218271**

NAGPA (NM_016256) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NAGPA (NM_016256) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NAGPA
Synonyms:	APAA; UCE
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC218271 representing NM_016256
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCGACCTCCACGGGTGCTGGCTTCTCCTCCGGCTTGCCTACTTCGGCTTCTCTGGGAAGCGTCCG
 GCGGCCTCGACTCGGGGGCTCCCGCGACGACGACTTGTACTGCCTATCCACGCGCGCGCGCGCCT
 CCCCCGGGACTGCACACGGGTGCGCGCCGGCAACCGCGAGCAGAGAGTTGGCCTCCGCCTCCCGGACT
 CCGGCGCGGGGCTGTCGGCTGCGCACCTTCGTGTCGCACTTCAGGGACCGCGCGGTGGCCGGCCACC
 TGACGCGGGCGTGTAGCCCTGCGCACCTTCGGTGTGGAGCCCGGTGGACCCGGCGGTGCGCGGC
 GAGACGACGCGCCACCGTGGAGGAGACGGCGGGCGGCCGACTGCCGTGTGCCAGAAGCGGGCTTC
 TTCGCATGAACCGGGGAGTGCCTGGGAACGTGGTGGAGCAGAGCGCGGGTGGCAGCTCCGGGG
 GGCTGCAGAACGCGCAGTTCGGGATCCGCCGCGACGGGACCTGGTACCAGGACCTGTCTGAGGAGGA
 GGTGCTGGACACTGAGAACCATTGTGCAGCTGCTGAGTGGGGTGTGGCTGATTTCGTAATGGAAGC
 ATCTACATCAACGAGAGCAAGCCACAGAGTGTGACGAGACACAGGAGACAGGTTCTTTAGCAAATTTG
 TGAATGTGATATCAGCCAGGACGGCCATTGGCCACGACCGAAAGGGCAGCTGGTCTTTTCATGCAGA
 CGGCCAAACGGAGCAGCGTGGCATCAACCTGTGGGAAATGGCGGAGTTCTCTGCTGAAACAGGACGTGGT
 AACGCCATCAACCTGGATGGGGTGGCTCTGCCACCTTTGTGCTCAACGGGACCTTGGCCAGTTACCCGT
 CAGATCACTGCCAGGACAACATGTGGCGCTGTCCCGCAAGTGTCCACCGTGGTGTGTGTCACGAACC
 CCGCTGCCAGCCGCTGACTGCCACGGCACGGGACCTGCGTGGACGGTACTGCCAATGCACCGGGCAC
 TTCTGGCGGGTCCCGCTGTGATGAGCTGGACTGTGGCCCTCTAACTGCAGCCAGCAGGACTGTGCA
 CGGAGACCGCTGCCGCTGTGATGCCGGATGGACCGGGTCCAACAGTGAAGAGTGTCCCTTTGGTGC
 GCATGGGCGGGGCTGCCAGAGCCCTTGAAGTGTGAGCACCAATTGTCCTGTGACCCCAAGACTGGCAAC
 TGACGCGTCTCCAGAGTAAAGCAGTGTCTCCAGCCACCTGAAGCCACCCTGAGGGCGGGAGAACTCTCT
 TTTTACCAGGACCGCTGGCTAGCCCTCACCTGGCGTGGCCTTCTCTCTGCTGATCAGCATTGCAGC
 AAACCTGTCTTGTCTGTCCAGAGCAGAGGAACCGCGCCTGCATGGGGACTATGCATACCACCCG
 CTGCAGGAGATGAACGGGGAGCCTCTGGCCGAGAGAAGGAGCAGCCAGGGGGCGCCACAACCCCTTCA
 AGGAC

ACGCGTACGCGGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC218271 representing NM_016256
 Red=Cloning site Green=Tags(s)

MATSTGRWLLRLALFGFLWEASGLDSGASRDDLLLPYPRARARLPRDCTRVVRAGNREHESWPPPPAT
 PGAGGLAVRTFVSHFRDRAVAGHLTRAVEPLRTFSVLEPGPGGCAARRRATVEETARAADCRAVQNGGF
 FRMNSGECLGNVSDERRVSSSGGLQNAQFGIRRDGTLVTGYLSEEEVLDTENPFVQLLSGVVWLIRNGS
 IYINESQATECDETQETGFSKFNVISARTAIGHDRKQLVLFHADGQTEQRGINLWEMAEFLKQDVV
 NAINLDGGGSATFVLNGLASYPDHCQDNMWRCPQVSTVVCVHEPRCQPPDCHGHGTCVDGYCQCTGH
 FWRGPGCDELDCGPSNCSQHGLCTETGCRCDAGWTGSNCSEECPLGWHGPGCQRPCCKEHHPCDPKTGN
 CSVSRVKQLQPPEATLRAGELSFTRTAWLALTLALAFLLLISIAANLSLLLRAERNRRLHGDYAYHP
 LQEMNGEPLAAEKEQPGGAHNPFKD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg3487_b05.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_016256

ORF Size: 1545 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_016256.4](#)

RefSeq Size: 2219 bp

RefSeq ORF: 1548 bp

Locus ID: 51172

UniProt ID: [Q9UK23](#)

Cytogenetics: 16p13.3

Domains: EGF

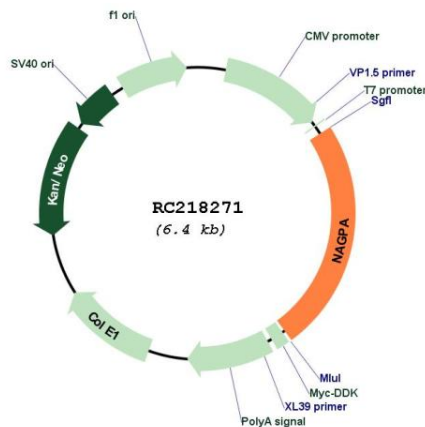
Protein Families: Transmembrane

Protein Pathways: Lysosome

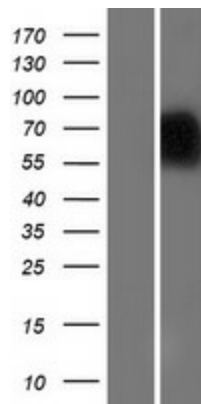
MW: 56.11 kDa

Gene Summary: Hydrolases are transported to lysosomes after binding to mannose 6-phosphate receptors in the trans-Golgi network. This gene encodes the enzyme that catalyzes the second step in the formation of the mannose 6-phosphate recognition marker on lysosomal hydrolases. Commonly known as 'uncovering enzyme' or UCE, this enzyme removes N-acetyl-D-glucosamine (GlcNAc) residues from GlcNAc-alpha-P-mannose moieties and thereby produces the recognition marker. The encoded preproprotein is proteolytically processed by furin to generate the mature enzyme, a homotetramer of two disulfide-linked homodimers. Mutations in this gene are associated with developmental stuttering in human patients. [provided by RefSeq, Oct 2015]

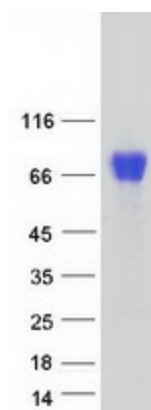
Product images:



Circular map for RC218271



Western blot validation of overexpression lysate (Cat# [LY414096]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218271 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NAGPA protein (Cat# [TP318271]). The protein was produced from HEK293T cells transfected with NAGPA cDNA clone (Cat# RC218271) using MegaTran 2.0 (Cat# [TT210002]).