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# Product Information

## MemDX™ Membrane Protein Human NAGPA (N-acetylglucosamine-1-phosphodiester alpha-N-acetylglucosaminidase) Full Length

Cat. No.: **MPC4080K**
This product is for research use only and is not intended for diagnostic use.

This product is a made-to-order Human NAGPA membrane protein expressed in HEK293. The protein is for research use only and is not approved for use in humans or in clinical diagnosis.

## Product Specifications

**Host Species**
Human

**Target Protein**
NAGPA

**Protein Length**
Full length

**Protein Class**
Receptor

**TMD**
1

**Sequence**
MATSTGRWLLLRLALFGFLWEASGGLDSGASRDDDLLLPYPRARARLPRD
CTRVRAGNREHESWPPPPATPGAGGLAVRTFVSHFRDRAVAGHLTRAVEP
LRTFSVLEPGGPGGCAARRRATVEETARAADCRVAQNGGFFRMNSGECLG
NVVSDERRVSSSGGLQNAQFGIRRDGTLVTGYLSEEEVLDTENPFVQLLS
GVVWLIRNGSIYINESQATECDETQETGSFSKFVNVISARTAIGHDRKGQ
LVLFHADGQTEQRGINLWEMAEFLLKQDVVNAINLDGGGSATFVLNGTLA
SYPSDHCQDNMWRCPRQVSTVVCVHEPRCQPPDCHGHGTCVDGHCQCTGH
FWRGPGCDELDCGPSNCSQHGLCTETGCRCDAGWTGSNCSEECPLGWHGP
GCQRPCKCEHHCPCDPKTGNCSVSRVKQCLQPPEATLRAGELSFFTRTAW
LALTLALAFLLLISTAANLSLLLSRAERNRRLHGDYAYHPLQEMNGEPLA
AEKEQPGGAHNPFKD

## Product Description

**Expression Systems**
HEK293

**Tag**
Based on specific requirements

**Protein Format**

Detergent or based on specific requirements (Detergent, Liposome, Nanodisc, Polymer, VLP)

**Form**

Liquid

**Storage**

Aliquot and store at -20°C or lower. For long term storage, we recommend to store at -72°C or lower. Avoid freeze/thaw cycles.

## Target

**Target Protein**

NAGPA

**Full Name**

N-acetylglucosamine-1-phosphodiester alpha-N-acetylglucosaminidase

**Introduction**

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.

**Alternative Names**

NAGPA; UCE; APAA; alpha-N-acetylglucosaminyl phosphodiesterase; lysosomal alpha-N-acetylglucosaminidase; mannose 6-phosphate-uncovering enzyme; phosphodiester alpha-GlcNAcase; N-acetylglucosamine-1-phosphodiester alpha-N-acetylglucosaminidase

**Gene ID**

51172

**UniProt ID**

Q9UK23

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