10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

NAGPA Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP57348

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q9UK23
Reactivity	Rat, Pig, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	56073
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human NAGPA
Epitope Specificity	171-270/515
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Golgi apparatus > Golgi stack membrane. Cis/medial Golgi.
SIMILARITY	Contains 1 EGF-like domain.
SUBUNIT	Homotetramer arranged as two disulfide-linked homodimers
Post-translational modifications	The precursor is cleaved and activated in the trans-Golgi network by a furin endopeptidase.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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. This reaction most likely occurs in the trans-Golgi network. This enzyme functions as a homotetramer of two disulfide-linked homodimers. In addition to having an N-terminal signal peptide, the protein's C-terminus contains multiple signals for trafficking it between lysosomes, the plasma membrane, and trans-Golgi network. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	51172
Other Names	N-acetylglucosamine-1-phosphodiester alpha-N-acetylglucosaminidase, 3.1.4.45, Mannose 6-phosphate-uncovering enzyme, Phosphodiester alpha-GlcNAcase, NAGPA
Target/Specificity	Isoform 2 may be brain-specific.

Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	NAGPA
Function	Catalyzes the second step in the formation of the mannose 6- phosphate targeting signal on lysosomal enzyme oligosaccharides by removing GlcNAc residues from GlcNAc-alpha-P-mannose moieties, which are formed in the first step. Also hydrolyzes UDP-GlcNAc, a sugar donor for Golgi N-acetylglucosaminyltransferases.
Cellular Location	Golgi apparatus, Golgi stack membrane; Single-pass type I membrane protein. Golgi apparatus, trans-Golgi network. Note=Cis/medial Golgi
Tissue Location	Isoform 2 may be brain-specific.