

GANAB Rabbit pAb

Catalog # AP99233

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q14697
Other Accession	Q14697
Reactivity	Rat, Mouse
Predicted	Pig, Human, Rabbit, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	106874
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human GANAB/alpha Glucosidase II
Epitope Specificity	428-540/944
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the glycosyl hydrolase 31 family.
SUBUNIT	Heterodimer of a catalytic alpha subunit (GANAB) and a beta subunit (PRKCSH). Binds glycosylated PTPRC (By similarity).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Trimming of glucoses from N-linked core glycans on newly synthesized glycoproteins occurs sequentially through the action of Glucosidases I and II in the endoplasmic reticulum (ER). Glucosidase II is an ER-localized enzyme that contains a and b subunits (Glucosidase IIa and Glucosidase IIb) which form a defined heterodimeric complex. Glucosidase IIa is the catalytic core of the enzyme and can function independently of the b subunit. The sequence of Glucosidase IIb encodes protein rich in glutamic and aspartic acid with a putative ER retention signal (HDEL) at the C-terminus. The phosphorylated form of Glucosidase IIb is localized in the plasma membrane and is highly expressed in FGF-stimulated fibroblasts and epidermal carcinoma cells. Glucosidase IIb was first purified from a human carcinoma cell line as a potential substrate for protein kinase C. Through the HDEL signal at the C-terminus, Glucosidase IIb retains the complete complex in the ER.

Additional Information

Gene ID	23193
Other Names	G2AN; GIIA; GIIalpha; GLUII; PKD3; GANAB_HUMAN; GANAB; Alpha-glucosidase 2; Glucosidase II subunit alpha; 3.2.1.207; KIAA0088; glucosidase II alpha subunit; glucosidase, alpha; neutral AB; neutral alpha-glucosidase AB; mannosyl-oligosaccharide alpha-1, 3-glucosidase

Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	GANAB {ECO:0000303 PubMed:28375157, ECO:0000312 HGNC:HGNC:4138}
Function	Catalytic subunit of glucosidase II that cleaves sequentially the 2 innermost alpha-1,3-linked glucose residues from the Glc(2)Man(9)GlcNAc(2) oligosaccharide precursor of immature glycoproteins (PubMed: 10929008). Required for PKD1/Polycystin-1 and PKD2/Polycystin-2 maturation and localization to the cell surface and cilia (PubMed: 27259053).
Cellular Location	Endoplasmic reticulum. Golgi apparatus {ECO:0000250 UniProtKB:P79403}. Melanosome. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV
Tissue Location	Detected in placenta (PubMed:3881423). Isoform 1 and isoform 2 are expressed in the kidney and liver (PubMed:27259053)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.