

GGA2 Rabbit pAb

Catalog # AP97419

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9UJY4
Other Accession	Q9UJY4
Host	Rabbit
Clonality	Polyclonal
Calculated MW	67150
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human GGA2
Epitope Specificity	161-260/613
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 GGA protein family. Contains 1 GAE domain. Contains 1 GAT domain. Contains 1 VHS domain.
SUBUNIT	Monomer. Interacts with NECAP1, TSG101, UBC and AFTPH/aftiphilin. Interacts with CNST (By similarity). Interacts with GGA1 and GGA3. Binds to clathrin and activated ARFs. Binds RABEP1 and RABGEF1. Interacts with the type-I membrane proteins SORT1, SORL1, LRP3, M6PR/CD-MPR, IGF2R/CI-MPR and BACE1. Binds the accessory proteins CCDC91, P200, SYNRG, EPN4 and NECAP2.
Post-translational modifications	Ubiquitinated.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	A family of proteins, the GGAs (Golgi-localized, g-adaptin ear-containing, ARF-binding proteins) sequences that showed significant homology to the carboxy-terminal 'ear' domain of g-adaptin. Members of the GGA family (GGA1, GGA2 (also known as VEAR or VHS domain and ear domain of g-adaptin) and GGA3) are ubiquitous coat proteins that facilitate the trafficking of proteins between the trans-Golgi network and the lysosome. However, unlike g-adaptin, the GGAs are not associated with clathrin-coated vesicles or with any of the components of the AP-1 complex. GGA1 and GGA2 are also not associated with each other, although they colocalize on perinuclear membranes. GGA2 shares 45% amino acid sequence identity with GGA1 and 35% with GGA3. In addition to being involved in heterotypic vesicle/suborganelle interactions associated with the Golgi complex, GGA2 may have a tissue-specific function and is highly expressed in kidney, muscle and heart. Furthermore, the VHS domain of GGA2 binds to the acidic cluster-di-leucine motif in the cytoplasmic tail of the cation-independent mannose 6-phosphate receptor (CI-MPR) and this is important for lysosomal enzyme targeting.

Additional Information

Gene ID	23062
Other Names	VEAR; 1200007E24Rik; mKIAA1080; GGA2_HUMAN; GGA2; Gamma-adaptin-related protein 2; Golgi-localized, gamma ear-containing, ARF-binding protein 2; VHS domain and ear domain of gamma-adaptin (Vear); KIAA1080; GGA2_MOUSE; golgi associated, gamma adaptin ear containing, ARF binding protein 2; golgi-associated, gamma adaptin ear containing, ARF binding protein 2
Dilution	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	GGA2
Synonyms	KIAA1080
Function	Plays a role in protein sorting and trafficking between the trans-Golgi network (TGN) and endosomes. Mediates the ARF-dependent recruitment of clathrin to the TGN and binds ubiquitinated proteins and membrane cargo molecules with a cytosolic acidic cluster-dileucine (DXXLL) motif (PubMed: 10747088). Mediates export of the GPCR receptor ADRA2B to the cell surface (PubMed: 27901063). Regulates retrograde transport of phosphorylated form of BACE1 from endosomes to the trans- Golgi network (PubMed: 15615712).
Cellular Location	Golgi apparatus, trans-Golgi network membrane; Peripheral membrane protein. Endosome membrane; Peripheral membrane protein. Early endosome membrane; Peripheral membrane protein
Tissue Location	Ubiquitously expressed.

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