

**Anti-GGA3 (RABBIT) Antibody**  
**GGA3 Antibody**  
**Catalog # ASR5325****Specification**

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**Anti-GGA3 (RABBIT) Antibody - Product Information**

Host	<b>Rabbit</b>
Conjugate	<b>Unconjugated</b>
Target Species	<b>Human</b>
Reactivity	<b>Chimpanzee, Human</b>
Clonality	<b>Polyclonal</b>
Application	<b>WB, E, IP, I, LCI</b>
Application Note	<b>This affinity purified antibody has been tested for use in ELISA and western blot. Specific conditions for reactivity should be optimized by the end user. Expect bands at 78 kDa in size corresponding to GGA3 by western blotting in the appropriate cell lysate or extract.</b>
Physical State	<b>Liquid (sterile filtered)</b>
Buffer	<b>0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2</b>
Immunogen	<b>This affinity-purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region near amino acids 400-425 of Human GGA3.</b>
Preservative	<b>0.01% (w/v) Sodium Azide</b>

**Anti-GGA3 (RABBIT) Antibody - Additional Information****Gene ID** 23163**Other Names**  
23163**Purity**

This affinity purified antibody is directed against human GGA3 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest reactivity with this protein from human and chimpanzee based on 100% homology for the immunogen sequence. Cross reactivity may occur with GGA3 from macaque (93% homology) and orangutan (87% homology) sources. The immunizing sequence is present on both the long (isoform 1) and short (isoform 2) transcript variants for this protein.

**Storage Condition**

Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

**Precautions Note**

This product is for research use only and is not intended for therapeutic or diagnostic applications.

**Anti-GGA3 (RABBIT) Antibody - Protein Information**

**Name** GGA3 {ECO:0000312|MIM:606006}

**Synonyms** KIAA0154

**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:<a href="http://www.uniprot.org/citations/11301005" target="\_blank">11301005</a>). Mediates export of the GPCR receptor ADRA2B to the cell surface (PubMed:<a href="http://www.uniprot.org/citations/26811329" target="\_blank">26811329</a>). Involved in BACE1 transport and sorting as well as regulation of BACE1 protein levels (PubMed:<a href="http://www.uniprot.org/citations/15615712" target="\_blank">15615712</a>, PubMed:<a href="http://www.uniprot.org/citations/17553422" target="\_blank">17553422</a>, PubMed:<a href="http://www.uniprot.org/citations/20484053" target="\_blank">20484053</a>). Regulates retrograde transport of BACE1 from endosomes to the trans-Golgi network via interaction through the VHS motif and dependent of BACE1 phosphorylation (PubMed:<a href="http://www.uniprot.org/citations/15615712" target="\_blank">15615712</a>). Modulates BACE1 protein levels independently of the interaction between VHS domain and DXXLL motif through recognition of ubiquitination (PubMed:<a href="http://www.uniprot.org/citations/20484053" target="\_blank">20484053</a>). Key player in a novel DXXLL-mediated endosomal sorting machinery to the recycling pathway that targets NTRK1 to the plasma membrane (By similarity).

**Cellular Location**

Golgi apparatus, trans-Golgi network membrane; Peripheral membrane protein. Endosome membrane; Peripheral membrane protein. Early endosome membrane; Peripheral membrane protein. Recycling endosome membrane {ECO:0000250|UniProtKB:A0A0G2JV04}; Peripheral membrane protein

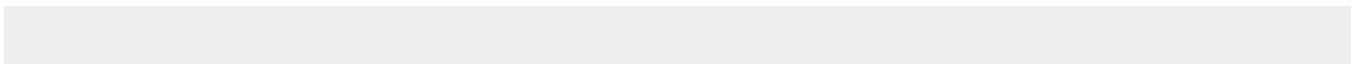
**Tissue Location**

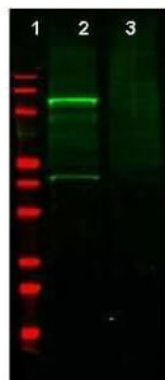
Ubiquitously expressed.

**Anti-GGA3 (RABBIT) Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-GGA3 (RABBIT) Antibody - Images**



Western blot using Rockland's Affinity Purified anti-GGA3 antibody shows detection of a band at ~110 kDa corresponding to GFP-GGA3 fusion protein present in a lysate of HEK293 cells over-expressing the recombinant protein (lane 2, arrowhead). Pre-incubation of antibody with immunizing peptide blocks specific staining (lane 3). MW markers are shown in lane 1 (700 nm channel - red). Approximately 35  $\mu$ g of lysate was separated on a 16% Tricine gel by SDS-PAGE and transferred onto nitrocellulose. After blocking the membrane was probed with the primary antibody diluted to 1:600. Reaction occurred overnight at 4° C followed by washes and reaction with a 1:10,000 dilution of IRDye800 conjugated Gt-a-Rabbit IgG [H&L] (611-132-122) for 45 min at room temperature (800 nm channel - green). IRDye800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.

#### **Anti-GGA3 (RABBIT) Antibody - Background**

GGA3 (also known as ADP-ribosylation factor binding protein GGA3, Golgi-localized, gamma ear-containing, ARF-binding protein 3, Gamma-adaptin related protein 3) plays a role in protein sorting and trafficking between the trans-Golgi network (TGN) and endosomes. This protein mediates the ARF-dependent recruitment of clathrin to the TGN and binds ubiquitinated proteins and membrane cargo molecules with a cytosolic acidic cluster-dileucine (AC-LL) motif. GGA1 is a monomeric protein that interacts with SORT1, SORL1, LRP3, GGA binding partner (GGABP) and P200, GGA1 and GGA2 as well as RABEP1, RABGEF1 and type-I membrane proteins M6PR/CD-MPR, IGF2R/CI-MPR and BACE1. GGA3 is a ubiquitously expressed membrane-associated protein that is localized to TGN and endosomes. Multiple alternatively spliced transcript variants encoding different isoforms have been found for this gene.