

Anti-AP1G1 (GOAT) Antibody AP1G1 Antibody Catalog # ASR5088

### Specification

### Anti-AP1G1 (GOAT) Antibody - Product Information

Host Conjugate Target Species Reactivity Clonality Application Application Note	Goat Unconjugated Human Human Polyclonal WB, E, IP, I, LCI This affinity purified antibody has been tested for use in ELISA and by western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 91 kDa in size corresponding to AP1G1 by western blotting in the appropriate cell lysate or extract.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	This affinity purified antibody was prepared from whole goat serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region near aa 625-675 of Human AP1G1.
Preservative	0.01% (w/v) Sodium Azide

## Anti-AP1G1 (GOAT) Antibody - Additional Information

Gene ID 164

Other Names 164

#### **Purity**

This affinity purified antibody is directed against human AP1G1. The product was affinity purified from antiserum by immunoaffinity purification. A BLAST analysis was used to suggest reactivity with this protein from human, chimpanzee and orangutan based on 100% homology for the immunogen sequence. Cross reactivity with AP1G1 protein from mouse, rat, dog and chicken may occur as sequence homology varies by only one amino acid residue in this sequence as indicated by BLAST analysis. Reactivity with AP1G1 proteins from other sources is not known.

### **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-AP1G1 (GOAT) Antibody - Protein Information

Name AP1G1

Synonyms ADTG, CLAPG1

#### Function

Subunit of clathrin-associated adaptor protein complex 1 that plays a role in protein sorting in the late-Golgi/trans-Golgi network (TGN) and/or endosomes. The AP complexes mediate both the recruitment of clathrin to membranes and the recognition of sorting signals within the cytosolic tails of transmembrane cargo molecules. In association with AFTPH/aftiphilin in the aftiphilin/p200/gamma-synergin complex, involved in the trafficking of transferrin from early to recycling endosomes, and the membrane trafficking of furin and the lysosomal enzyme cathepsin D between the trans-Golgi network (TGN) and endosomes (PubMed:<a href="http://www.uniprot.org/citations/15758025" target="\_blank">15758025</a>).

#### **Cellular Location**

Golgi apparatus. Cytoplasmic vesicle, clathrin-coated vesicle membrane; Peripheral membrane protein; Cytoplasmic side. Cytoplasm Cytoplasm, perinuclear region. Cytoplasmic vesicle, clathrin-coated vesicle. Membrane, clathrin-coated pit. Note=Component of the coat surrounding the cytoplasmic face of coated vesicles located at the Golgi complex (PubMed:12773381). Co-localizes with AFTPH/aftiphilin in the cytoplasm (PubMed:15758025).

**Tissue Location** Widely expressed.

## Anti-AP1G1 (GOAT) Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Anti-AP1G1 (GOAT) Antibody - Images



Western blot using Rockland's Affinity Purified anti-AP1G1 antibody shows strong detection of a 91-kDa band corresponding to Human AP1G1. Lane 1: HeLa whole cell lysate (p/n W09-000-364). Lane 2: Peptide competition (using 1  $\mu$ g/ml of the immunizing peptide) blocks the specific reactivity of this antibody with AP1G1. Approximately 20  $\mu$ g of each lysate was run on a SDS-PAGE and transferred onto nitrocellulose followed by reaction with a 1:500 dilution of anti-AP1G1 antibody. Detection occurred using a 1:5,000 dilution of HRP-labeled Rabbit anti-Goat IgG (p/n 605-4302) for 1 hour at room temperature. A chemiluminescence system was used for signal detection (Roche) using a 60-sec exposure time.

# Anti-AP1G1 (GOAT) Antibody - Background

AP1G1 (also known as gamma 1 subunit of adaptor -related protein complex 1, Gamma-adaptin, Adaptor protein complex AP-1 gamma-1 subunit, Golgi adaptor HA1/AP1 adaptin gamma-1 subunit and Clathrin assembly protein complex 1 gamma-1 large chain) is a subunit of clathrin-associated adaptor protein complex 1 that plays a role in protein sorting in the late-Golgi/trans-Golgi network (TGN) and/or endosomes. The AP complexes mediate both the recruitment of clathrin to membranes and the recognition of sorting signals within the cytosolic tails of transmembrane cargo molecules. The adaptin family of proteins is composed of four classes of molecules named alpha, beta-, beta prime- and gamma- adaptins. Adaptins, together with medium and small subunits, form a heterotetrameric complex called an adaptor, whose role is to promote the formation of clathrin-coated pits and vesicles. AP1G1 is localized to the coat surrounding the cytoplasmic face of coated vesicles located at the Golgi complex and is widely expressed.