

Goat Anti-ARF1, 2, 3, 4 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1094a

Specification

Goat Anti-ARF1, 2, 3, 4 Antibody - Product Information

| | |
|-------------------|--|
| Application | WB, FC, Pep-ELISA |
| Primary Accession | P84077 |
| Other Accession | NP_001019399 , 375 , 376 , 377 , 378 , 11840 (mouse), 64310 (rat) |
| Reactivity | Human |
| Predicted | Mouse, Rat, Dog |
| Host | Goat |
| Clonality | Polyclonal |
| Concentration | 100ug/200ul |
| Isotype | IgG |
| Calculated MW | 20697 |

Goat Anti-ARF1, 2, 3, 4 Antibody - Additional Information

Gene ID 375

Other Names

ADP-ribosylation factor 1, ARF1

Dilution

WB~~1:1000
FC~~1:10~50
Pep-ELISA~~N/A

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-ARF1, 2, 3, 4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-ARF1, 2, 3, 4 Antibody - Protein Information

Name ARF1

Function

Small GTPase involved in protein trafficking between different compartments (PubMed:8253837). Modulates vesicle budding and uncoating within the Golgi complex (PubMed:8253837). In its GTP-bound form, triggers the recruitment of coatomer proteins to the Golgi membrane (PubMed:8253837). The hydrolysis of ARF1-bound GTP, which is mediated by ARFGAPs proteins, is required for dissociation of coat proteins from Golgi membranes and vesicles (PubMed:8253837). The GTP-bound form interacts with PICK1 to limit PICK1-mediated inhibition of Arp2/3 complex activity; the function is linked to AMPA receptor (AMPAR) trafficking, regulation of synaptic plasticity of excitatory synapses and spine shrinkage during long-term depression (LTD) (By similarity). Plays a key role in the regulation of intestinal stem cells and gut microbiota, and is essential for maintaining intestinal homeostasis (By similarity). Also plays a critical role in mast cell expansion but not in mast cell maturation by facilitating optimal mTORC1 activation (By similarity).

Cellular Location

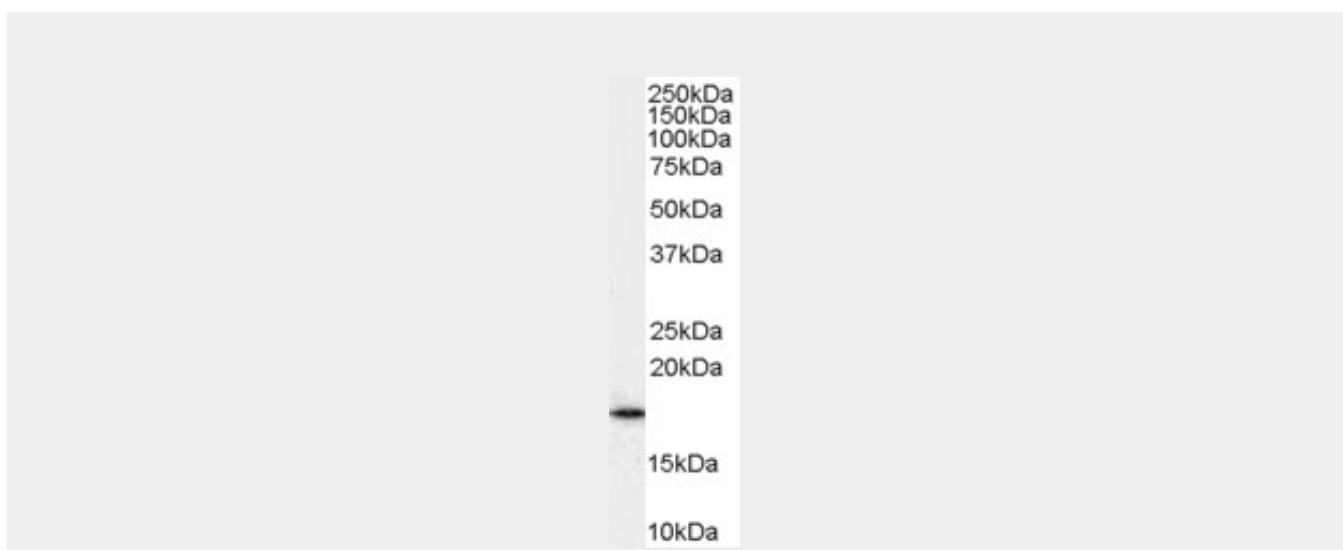
Golgi apparatus membrane; Lipid-anchor; Cytoplasmic side. Synapse, synaptosome {ECO:0000250|UniProtKB:P84079}. Postsynaptic density {ECO:0000250|UniProtKB:P84079}. Note=In the GDP-bound form, associates transiently with the membranes via its myristoylated N-terminus where guanine nucleotide-exchange factor (GEF)-mediated nucleotide exchange occurs (By similarity). Following nucleotide exchange, the GTP-bound form undergoes a conformational change, leading to the exposure of a myristoylated N-terminal amphipathic helix that provides stable membrane anchorage (By similarity). {ECO:0000250|UniProtKB:P84080}

Goat Anti-ARF1, 2, 3, 4 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](#)

Goat Anti-ARF1, 2, 3, 4 Antibody - Images



AF1094a (1 µg/ml) staining of HepG2 cell lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-ARF1, 2, 3, 4 Antibody - Background

ADP-ribosylation factor 1 (ARF1) is a member of the human ARF gene family. The family members encode small guanine nucleotide-binding proteins that stimulate the ADP-ribosyltransferase activity of cholera toxin and play a role in vesicular trafficking as activators of phospholipase D. The gene products, including 6 ARF proteins and 11 ARF-like proteins, constitute a family of the RAS superfamily. The ARF proteins are categorized as class I (ARF1, ARF2 and ARF3), class II (ARF4 and ARF5) and class III (ARF6), and members of each class share a common gene organization. The ARF1 protein is localized to the Golgi apparatus and has a central role in intra-Golgi transport. Multiple alternatively spliced transcript variants encoding the same protein have been found for this gene.

Goat Anti-ARF1, 2, 3, 4 Antibody - References

Regulation of mTORC1 by the Rab and Arf GTPases. Li L, et al. *J Biol Chem*, 2010 Jun 25. PMID 20457610.

Protein complexes containing CYFIP/Sra/PIR121 coordinate Arf1 and Rac1 signalling during clathrin-AP-1-coated carrier biogenesis at the TGN. Anitei M, et al. *Nat Cell Biol*, 2010 Apr. PMID 20228810.

Modifications to the C-terminus of Arf1 alter cell functions and protein interactions. Jian X, et al. *Traffic*, 2010 Jun. PMID 20214751.

Role of the GTPase Rab1b in ebolavirus particle formation. Yamayoshi S, et al. *J Virol*, 2010 May. PMID 20164217.

Role of the second cysteine-rich domain and Pro275 in protein kinase D2 interaction with ADP-ribosylation factor 1, trans-Golgi network recruitment, and protein transport. Pusapati GV, et al. *Mol Biol Cell*, 2010 Mar. PMID 20089835.