The ARF1 protein is localized to the Golgi apparatus and has a central role in intra-Golgi transport. It is a small GTPase that undergoes a GDP/GTP nucleotide exchange cycle and it is an important regulator of cellular trafficking.

**Immunogen**  
Recombinant GST fusion of full length of *Arabidopsis thaliana* ARF1 (P36397, AT2G47170)

**Host**  
Rabbit

**Clonality**  
Polyclonal

**Purity**  
Serum

**Format**  
Lyophilized

**Quantity**  
50 µl

**Reconstitution**  
For reconstitution add 50 µl of sterile water.

**Storage**  
Store lyophilized/reconstituted at -20°C; once reconstituted make aliquots to avoid repeated freeze-thaw cycles. Please, remember to spin tubes briefly prior to opening them to avoid any losses that might occur from lyophilized material adhering to the cap or sides of the tubes.

**Tested applications**  
Immunofluorescence (IF), Immunogold (IG), Western blot (WB)

**Related products**  
AS08 327 | Anti-Sec21 (gamma subunit, COP vesicles)(Golgi marker in immunolocalization and COP1 marker in western blot), rabbit antibodies

AS08 325PRE | Arf1 | ADP-ribosylation factor 1, pre-immune serum

recommened secondary antibody

Plant and algal protein extraction buffer

Secondary antibodies

**Additional information**  
Cellular [compartment marker] of Golgi in immunolocalization and COP1 in western blot

**Application information**  

**Recommended dilution**  
1 : 1000 (IF). 1 : 100 (IG), 1 : 1000 (WB)

**Expected | apparent MW**  
21 kDa (*Arabidopsis thaliana*)

**Confirmed reactivity**  

**Predicted reactivity**  
*Brassica juncea*, *Brassica napus*, *Capsella rubella*, *Capsicum annum*, *Cucumis sp.*, *Daucus carota*, *Elaeis guineensis*, *Glycine max*, *Helleborus orientalis*, *Hordeum vulgare*, *Medicago truncatula*, *Nicotiana benthamina*, *Ostreococcus tauri*, *Populus trichocarpa*, *Zea mays*

**Not reactive in**  
*Microsporidia* sp.

**Additional information**  
References describing immunolocalization (IF) and (IG) studies:


**Selected references**


**Application example**

50 µg of total protein from (1) Nicotiana tabacum protoplast total protein, (2) Arabidopsis thaliana protoplast soluble protein, (3) Arabidopsis thaliana protoplast total protein were separated on 10 % SDS-PAGE and blotted 2h to nitrocellulose (Semi-dry, 200mA). Filters were blocked over night with 5% low-fat milk powder in TBS and probed with anti-Sec21p antibodies (AS08 327, 1:1000, 1h) and secondary anti-rabbit (1:20000, 1 h) antibody (HRP) in TBS-Tween (recommended secondary antibody AS09 602). Signal was detected with chemiluminescence detection reagent and exposure time for this image was 1 minute.

Protoplasts were extracted in 50mM Tris, 10 mM EDTA and Triton X100, 0.02%.

**Immunofluorescence**

Specificity testing of rabbit anti-ARF1 serum. Immunofluorescence labelling of rabbit anti-ARF1 antibody (red) in 5-day-old root epidermal cells of the Arabidopsis thaliana ecotype Columbia-0 (WT) or seedlings expressing the ADP-RIboseylation FACTOR 1 (AIARFA1c; accession
At2g47170 fused to EGFP (green) (Xu, J. and Scheres, B. 2005. Plant Cell 17, 525-536). The rabbit anti-ARF1 antibody was diluted 1:1000 and the secondary antibody, donkey anti-rabbit CY5-coupled (Jackson ImmunoResearch) was diluted 1:300. The nuclei were stained with DAPI (blue). Note the co-labelling of ARF1-GFP with the anti-ARF1 antibody (arrowheads) and the additional labelling (potentially of other ARF1 variants) by the anti-ARF1 antibody (arrows). The antibody staining permeability was limited to the 1-2 outermost layers of the whole-mounted root tips.

Courtesy of Dr. Anna Gustavsson and Dr. Markus Grebe