

ARF1 Monoclonal Antibody (ARFS 3F1)

Product Specifications	
Catalog Number:	CSA-450
Host:	Mouse
Isotype:	IgG _{2a}
Species Reactivity:	Human, mouse, rat (weak), canine, bovine, chicken, guinea pig, monkey (weak), pig, rabbit, and sheep (weak)
Applications: <i>The optimal dilution for a specific application must be determined by the investigator</i>	WB: 4 µg/mL (ECL)
Predicted m.w.:	~22 kDa
Concentration:	See product label
Purification:	Protein G affinity
Format:	PBS, pH 7.2, 0.09% azide, 50% glycerol
Storage: <i>Shipping conditions may differ from the recommended storage temperature</i>	Store at -20°C
Immunogen:	Synthetic peptide derived from sequence near the carboxy-terminus of human ARF1
Related Products:	
LYT-MB100	Mouse Brain Tissue Extract
SAB-100	Goat anti-Mouse IgG (Fab) Polyclonal Antibody, HRP Conjugate
KAP-GP001	Ras Polyclonal Antibody
KAS-GP007	cdc42/Rac Polyclonal Antibody
EKS-440	cdc42/Rac Activation Kit

Background:

ADP-ribosylation factors (ARF) are a ubiquitous family of GTP-binding proteins involved in membrane dynamics and vesicular trafficking. The ARF family also includes the structurally related ARF-like proteins. ARF family members possess a highly conserved structure and function in eukaryotes. ARFs function as essential proteins in *Saccharomyces cerevisiae* (ARF-1 and ARF-2) and in *Drosophila melanogaster* (ARF-like). Many studies associate ARF proteins with exocytic and endocytic transport pathways, and the activation of phospholipase D activity. ARF-1, an abundantly expressed Ras-like N-myristoylated GTP-binding protein, co-purifies with tightly bound GDP. ARF possesses an extra β -strand (β 2E) and N-terminal helix, two structural elements missing in Ras. Like Ras, ARF-1 switches between the GTP-bound "on" state where it transfers signals to its effectors in the signaling pathway, and the GDP-bound "off" state¹⁻⁴.

References:

1. Honda, A., *et al.* (2005) *J Cell Biol.* **168**, 1039-1051.
2. Kremer, W., *et al.* (2004) *J Biol Chem.* **279**, 17004-17012.
3. Straube, S., and Parekh, A.B. (2004) *Biochem J.* **377**, 539-544.
4. Randazzo, P., *et al.* (1994) *J Biol Chem.* **269**, 29490-29494.

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