SANTA CRUZ BIOTECHNOLOGY, INC.

ARF6 (3A-1): sc-7971

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The ADP-ribosylation factor (ARF) protein family are structurally and functionally conserved members of the Ras superfamily of regulatory GTP-binding proteins. ARFs influence vesicle trafficking and signal transduction in eukaryotic cells. ARF-dependent regulatory mechanisms include the coordination of spectrin interactions with Golgi membranes and the association of actin to the Golgi via Rho family-dependent G protein localization (Rac, CDC42) and WASP/Arp2/3 complexes. Additionally, ARFs play a central role in maintenance of organelle integrity, assembly of coat proteins and activation of phospholipase D. The ARF proteins are categorized as class I (ARF1, ARF2 and ARF3), class II (ARF4 and ARF5) and class III (ARF6); members of each class share a common gene organization. The human ARF6 gene contains five exons and four introns and encodes a 175 amino acid protein.

CHROMOSOMAL LOCATION

Genetic locus: ARF6 (human) mapping to 14q21.3; Arf6 (mouse) mapping to 12 C2.

SOURCE

ARF6 (3A-1) is a mouse monoclonal antibody raised against amino acids 1-174 representing full length of ARF6 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ARF6 (3A-1) is available conjugated to agarose (sc-7971 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-7971 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-7971 PE), fluorescein (sc-7971 FITC), Alexa Fluor® 488 (sc-7971 AF488), Alexa Fluor® 546 (sc-7971 AF546), Alexa Fluor® 594 (sc-7971 AF594) or Alexa Fluor® 647 (sc-7971 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-7971 AF680) or Alexa Fluor® 790 (sc-7971 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ARF6 (3A-1) is recommended for detection of ARF6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ARF6 siRNA (h): sc-43619, ARF6 siRNA (m): sc-43620, ARF6 siRNA (r): sc-77367, ARF6 shRNA Plasmid (h): sc-43619-SH, ARF6 shRNA Plasmid (m): sc-43620-SH, ARF6 shRNA Plasmid (r): sc-77367-SH, ARF6 shRNA (h) Lentiviral Particles: sc-43619-V, ARF6 shRNA (m) Lentiviral Particles: sc-43620-V and ARF6 shRNA (r) Lentiviral Particles: sc-77367-V.

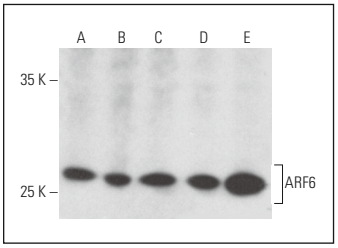
Molecular Weight of ARF6: 26 kDa.

Positive Controls: Hs 181 Tes whole cell lysate: sc-364779.

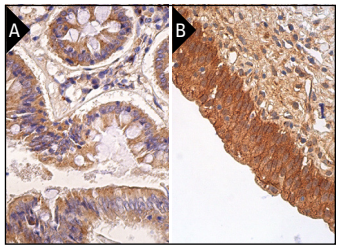
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



ARF6 (3A-1): sc-7971. Western blot analysis of ARF6 expression in Hs 181 Tes (**A**), SP2/0 (**B**), EOC 20 (**C**), C6 (**D**) and PC-12 (**E**) whole cell lysates.



ARF6 (3A-1): sc-7971. Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing cytoplasmic staining of glandular cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing cytoplasmic and membrane staining of urothelial cells (**B**).

SELECT PRODUCT CITATIONS

1. Matsukawa, J., et al. 2003. Role of ADP-ribosylation factor 6 (ARF6) in gastric acid secretion. J. Biol. Chem. 278: 36470-36475.
2. Isakson, P., et al. 2013. TRAF6 mediates ubiquitination of KIF23/MKLP1 and is required for midbody ring degradation by selective autophagy. Autophagy 9: 1955-1964.
3. Cheung, H.N., et al. 2014. FE65 interacts with ADP-ribosylation factor 6 to promote neurite outgrowth. FASEB J. 28: 337-349.
4. Schlienger, S., et al. 2015. ARF1 regulates adhesion of MDA-MB-231 invasive breast cancer cells through formation of focal adhesions. Cell. Signal. 27: 403-415.
5. Chiang, C.F., et al. 2016. Endocytic pathways used by Andes virus to enter primary human lung endothelial cells. PLoS ONE 11: e0164768.
6. Taniguchi, K., et al. 2017. An apicosome initiates self-organizing morphogenesis of human pluripotent stem cells. J. Cell Biol. 216: 3981-3990.
7. Chiou, N.T., et al. 2018. Selective export into extracellular vesicles and function of tRNA fragments during T cell activation. Cell Rep. 25: 3356-3370.
8. Zaoui, K., et al. 2019. ARF6 regulates RhoB subcellular localization to control cancer cell invasion. J. Cell Biol. 218: 3812-3826.
9. Chan, W.W.R., et al. 2020. ARF6-Rac1 signaling-mediated neurite outgrowth is potentiated by the neuronal adaptor FE65 through orchestrating ARF6 and ELMO1. FASEB J. 34: 16397-16413.

RESEARCH USE

For research use only, not for use in diagnostic procedures.