

# ARL1 (B-2): sc-393785

## BACKGROUND

ADP-ribosylation factors (ARFs) are highly conserved guanine nucleotide-binding proteins that enhance the ADP-ribosyltransferase activity of cholera toxin. ARFs may also participate in vesicular transport in both exocytic and endocytic pathways. ARL1 is a member of the ARF-like protein (ARL) sub-family of small GTPases. On subcellular fractionation, ARL1, similar to ARF1, localizes to the soluble fraction. ARL1 associates with the trans side of the Golgi apparatus, where it aids in the regulation of membrane traffic as well as the structure and function of the Golgi apparatus. In addition, the yeast Arl11 gene plays an important role in the formation of central vacuoles and in the progression of programmed cell death induced by cell-cycle arrest or Bax.

## CHROMOSOMAL LOCATION

Genetic locus: ARL1 (human) mapping to 12q23.2; Arl1 (mouse) mapping to 10 C1.

## SOURCE

ARL1 (B-2) is a mouse monoclonal antibody raised against amino acids 128-181 mapping at the C-terminus of ARL1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ARL1 (B-2) is available conjugated to agarose (sc-393785 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393785 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393785 PE), fluorescein (sc-393785 FITC), Alexa Fluor<sup>®</sup> 488 (sc-393785 AF488), Alexa Fluor<sup>®</sup> 546 (sc-393785 AF546), Alexa Fluor<sup>®</sup> 594 (sc-393785 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-393785 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-393785 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-393785 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## STORAGE

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

## APPLICATIONS

ARL1 (B-2) is recommended for detection of ARL1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

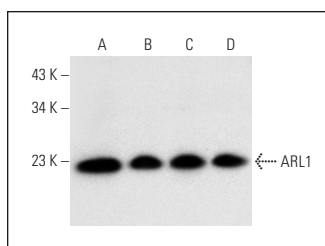
Suitable for use as control antibody for ARL1 siRNA (h): sc-106957, ARL1 siRNA (m): sc-141235, ARL1 shRNA Plasmid (h): sc-106957-SH, ARL1 shRNA Plasmid (m): sc-141235-SH, ARL1 shRNA (h) Lentiviral Particles: sc-106957-V and ARL1 shRNA (m) Lentiviral Particles: sc-141235-V.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 or RT-4 whole cell lysate: sc-364257.

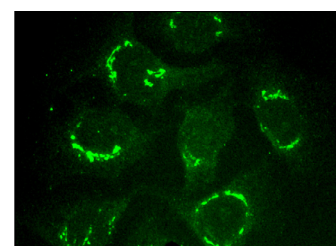
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



ARL1 (B-2): sc-393785. Western blot analysis of ARL1 expression in Hep G2 (A), HeLa (B), RT-4 (C) and U-251-MG (D) whole cell lysates.



ARL1 (B-2): sc-393785. Immunofluorescence staining of methanol-fixed HeLa cells showing Golgi apparatus localization.

## SELECT PRODUCT CITATIONS

- Eiseler, T., et al. 2016. Protein kinase D2 assembles a multiprotein complex at the *trans*-Golgi network to regulate matrix metalloproteinase secretion. *J. Biol. Chem.* 291: 462-477.
- Kim, H.J., et al. 2021. Resolvin D1 suppresses H<sub>2</sub>O<sub>2</sub>-induced senescence in fibroblasts by inducing autophagy through the miR-1299/ARG2/ARL1 axis. *Antioxidants* 10: 1924.
- van Bommel, D.M., et al. 2022. Vti1a/b support distinct aspects of TGN and *cis*-medial Golgi organization. *Sci. Rep.* 12: 20870.
- van Bommel, D.M., et al. 2023. Mapping localization of 21 endogenous proteins in the Golgi apparatus of rodent neurons. *Sci. Rep.* 13: 2871.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

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