

ARHGAP29 (H-2): sc-377022

BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in down regulation of their active form. ARHGAP29 (Rho GTPase activating protein 29), also known as PARG1, is a 1,261 amino acid protein that is widely expressed and contains a phorbol-ester/DAG-type zinc finger and a Rho-GAP domain. There is high expression of ARHGAP29 in skeletal muscle and heart, intermediate expression in placenta, liver and pancreas, and weak expression in brain, lung and kidney. As a GTPase activator, ARHGAP29 converts Rho-type GTPases to an inactive GDP-bound state and has strong activity toward Rho A, and weaker activity toward Rac 1 and Cdc42. Also considered a specific effector of Rap 2A to regulate Rho, ARHGAP29 is strongly down-regulated in mantle-cell lymphomas and up-regulated in migrating glioma cells. ARHGAP29 exists as two alternatively spliced isoforms.

REFERENCES

1. Saras, J., et al. 1997. A novel GTPase-activating protein for Rho interacts with a PDZ domain of the protein-tyrosine phosphatase PTP1. *J. Biol. Chem.* 272: 24333-24338.
2. Bassères, D.S., et al. 2002. ARHGAP10, a novel human gene coding for a potentially cytoskeletal Rho-GTPase activating protein. *Biochem. Biophys. Res. Commun.* 294: 579-585.
3. Myagmar, B.E., et al. 2005. PARG1, a protein-tyrosine phosphatase-associated RhoGAP, as a putative Rap2 effector. *Biochem. Biophys. Res. Commun.* 329: 1046-1052.

CHROMOSOMAL LOCATION

Genetic locus: ARHGAP29 (human) mapping to 1p22.1; Arhgap29 (mouse) mapping to 3 G1.

SOURCE

ARHGAP29 (H-2) is a mouse monoclonal antibody raised against amino acids 881-1180 mapping within an internal region of ARHGAP29 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ARHGAP29 (H-2) is available conjugated to agarose (sc-377022 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377022 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377022 PE), fluorescein (sc-377022 FITC), Alexa Fluor[®] 488 (sc-377022 AF488), Alexa Fluor[®] 546 (sc-377022 AF546), Alexa Fluor[®] 594 (sc-377022 AF594) or Alexa Fluor[®] 647 (sc-377022 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-377022 AF680) or Alexa Fluor[®] 790 (sc-377022 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

ARHGAP29 (H-2) is recommended for detection of ARHGAP29 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), 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 ARHGAP29 siRNA (h): sc-78941, ARHGAP29 siRNA (m): sc-141215, ARHGAP29 shRNA Plasmid (h): sc-78941-SH, ARHGAP29 shRNA Plasmid (m): sc-141215-SH, ARHGAP29 shRNA (h) Lentiviral Particles: sc-78941-V and ARHGAP29 shRNA (m) Lentiviral Particles: sc-141215-V.

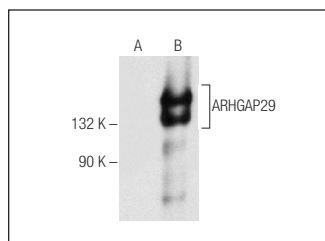
Molecular Weight of ARHGAP29: 142 kDa.

Positive Controls: ARHGAP29 (m): 293T Lysate: sc-118533.

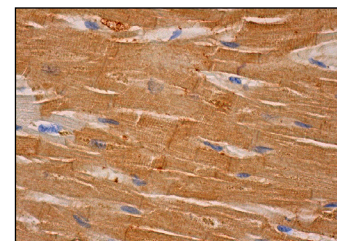
RECOMMENDED SUPPORT REAGENTS

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[™] Molecular Weight Standards: sc-2035, UltraCruz[®] 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[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



ARHGAP29 (H-2): sc-377022. Western blot analysis of ARHGAP29 expression in non-transfected: sc-117752 (A) and mouse ARHGAP29 transfected: sc-118533 (B) 293T whole cell lysates.



ARHGAP29 (H-2): sc-377022. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

SELECT PRODUCT CITATIONS

1. Huang, Y., et al. 2019. Arp2/3-branched Actin maintains an active pool of GTP-RhoA and controls RhoA abundance. *Cells* 8: 1264.
2. Huang, Y., et al. 2022. YAP activation in promoting negative durotaxis and acral melanoma progression. *Cells* 11: 3543.

RESEARCH USE

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