

ARHGAP28 (G-3): sc-365361

BACKGROUND

ARHGAP28 (Rho GTPase activating protein 28), also known as KIAA1314, is a 729 amino acid protein that contains one helical Rho-GAP domain. Expressed at moderate levels in ovary and kidney and at lower levels in skeletal muscle and spleen, ARHGAP28 functions as a negative regulator of Rho-type GTPases, specifically catalyzing the conversion of the target GTPase to an inactive, GDP-bound state. ARHGAP28, which exists as four alternatively spliced isoforms, is subject to DNA damaged-induced phosphorylation, possibly by ATM or ATR. The gene encoding ARHGAP28 localizes to human chromosome 18, which houses over 300 protein-coding genes and contains nearly 76 million bases. There are a variety of diseases associated with defects in chromosome 18-localized genes, some of which include Trisomy 18 (also known as Edwards syndrome), Niemann-Pick disease, hereditary hemorrhagic telangiectasia, erythropoietic protoporphyria and follicular lymphomas.

REFERENCES

1. Carstea, E.D., et al. 1993. Linkage of Niemann-Pick disease type C to human chromosome 18. *Proc. Natl. Acad. Sci. USA* 90: 2002-2004.
2. Nagase, T., et al. 2000. Prediction of the coding sequences of unidentified human genes. XVI. The complete sequences of 150 new cDNA clones from brain which code for large proteins *in vitro*. *DNA Res.* 7: 65-73.
3. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610592. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Petek, E., et al. 2003. Characterisation of a 19-year-old "long-term survivor" with Edwards syndrome. *Genet. Couns.* 14: 239-244.

CHROMOSOMAL LOCATION

Genetic locus: ARHGAP28 (human) mapping to 18p11.31; Arhgap28 (mouse) mapping to 17 E1.2.

SOURCE

ARHGAP28 (G-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 583-599 within an internal region of ARHGAP28 of human 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.

ARHGAP28 (G-3) is available conjugated to agarose (sc-365361 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365361 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365361 PE), fluorescein (sc-365361 FITC), Alexa Fluor[®] 488 (sc-365361 AF488), Alexa Fluor[®] 546 (sc-365361 AF546), Alexa Fluor[®] 594 (sc-365361 AF594) or Alexa Fluor[®] 647 (sc-365361 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-365361 AF680) or Alexa Fluor[®] 790 (sc-365361 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365361 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

ARHGAP28 (G-3) is recommended for detection of ARHGAP28 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).

ARHGAP28 (G-3) is also recommended for detection of ARHGAP28 in additional species, including porcine.

Suitable for use as control antibody for ARHGAP28 siRNA (h): sc-72534, ARHGAP28 siRNA (m): sc-141214, ARHGAP28 shRNA Plasmid (h): sc-72534-SH, ARHGAP28 shRNA Plasmid (m): sc-141214-SH, ARHGAP28 shRNA (h) Lentiviral Particles: sc-72534-V and ARHGAP28 shRNA (m) Lentiviral Particles: sc-141214-V.

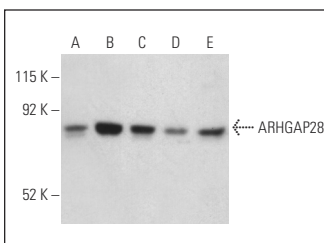
Molecular Weight of ARHGAP28 isoforms: 62-77 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A2058 whole cell lysate: sc-364178 or HEK293 whole cell lysate: sc-45136.

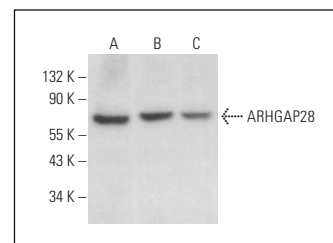
RECOMMENDED SUPPORT REAGENTS

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.

DATA



ARHGAP28 (G-3): sc-365361. Western blot analysis of ARHGAP28 expression in A2058 (A), U-2 OS (B), HEK293 (C), HeLa (D) and C2C12 (E) whole cell lysates. Detection reagent used: m-IgG₁ BP-HRP: sc-525408.



ARHGAP28 (G-3): sc-365361. Western blot analysis of ARHGAP28 expression in HeLa (A), A2058 (B) and HEK293 (C) whole cell lysates.

STORAGE

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

RESEARCH USE

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

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