SANTA CRUZ BIOTECHNOLOGY, INC.

ARHGAP39 (H-2): sc-515232

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in down regulation of their active form. KIAA1688, also known as ARHGAP39 (Rho GTPase activating protein 39), CrGAP or Vilse, is a 1,083 amino acid nuclear protein that contains one MyTH4 domain, one Rho-GAP domain and two WW domains. KIAA1688 is encoded by a gene located on human chromosome 8, which consists of nearly 146 million bases and encodes approximately 800 genes. Chromosome 8 is associated with a variety of diseases and malignancies. Schizophrenia, bipolar disorder, Trisomy 8, Pfeiffer syndrome, congenital hypothyroidism, Waardenburg syndrome and some leukemias and lymphomas are thought to occur as a result of defects in specific genes that maps to chromosome 8.

REFERENCES

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2. Kashino, G., et al. 2001. Preferential expression of an intact WRN gene in Werner syndrome cell lines in which a normal chromosome 8 has been introduced. Biochem. Biophys. Res. Commun. 289: 111-115.
3. Selicorni, A., et al. 2002. Cytogenetic mapping of a novel locus for type II Waardenburg syndrome. Hum. Genet. 110: 64-67.
4. McQueen, M.B., et al. 2005. Combined analysis from eleven linkage studies of bipolar disorder provides strong evidence of susceptibility loci on chromosomes 6q and 8q. Am. J. Hum. Genet. 77: 582-595.
5. Agrelo, R., et al. 2006. Epigenetic inactivation of the premature aging Werner syndrome gene in human cancer. Proc. Natl. Acad. Sci USA 103: 8822-8827.
6. Mossafa, H., et al. 2006. Non-Hodgkin's lymphomas with Burkitt-like cells are associated with c-Myc amplification and poor prognosis. Leuk. Lymphoma 47: 1885-1893.
7. Nusbaum, C., et al. 2006. DNA sequence and analysis of human chromosome 8. Nature 439: 331-335.

CHROMOSOMAL LOCATION

Genetic locus: ARHGAP39 (human) mapping to 8q24.3; Arhgap39 (mouse) mapping to 15 D3.

SOURCE

ARHGAP39 (H-2) is a mouse monoclonal antibody raised against amino acids 426-674 mapping within an internal region of ARHGAP39 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.

STORAGE

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

APPLICATIONS

ARHGAP39 (H-2) is recommended for detection of ARHGAP39 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 ARHGAP39 siRNA (h): sc-77775, ARHGAP39 siRNA (m): sc-142790, ARHGAP39 shRNA Plasmid (h): sc-77775-SH, ARHGAP39 shRNA Plasmid (m): sc-142790-SH, ARHGAP39 shRNA (h) Lentiviral Particles: sc-77775-V and ARHGAP39 shRNA (m) Lentiviral Particles: sc-142790-V.

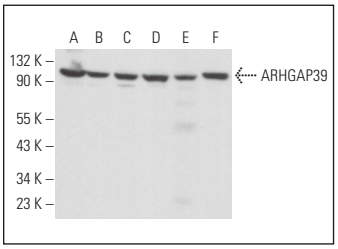
Molecular Weight of ARHGAP39: 121 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2411, HeLa nuclear extract: sc-2120 or Jurkat nuclear extract: sc-2132.

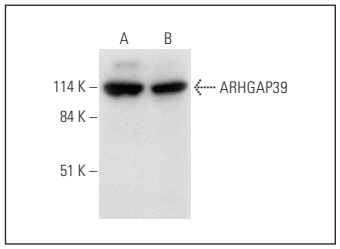
RECOMMENDED SUPPORT REAGENTS

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



ARHGAP39 (H-2): sc-515232. Western blot analysis of ARHGAP39 expression in HeLa nuclear extract (**A**) and Jurkat (**B**), TK-1 (**C**), RAW 264.7 (**D**), SP2/0 (**E**) and 3611-RF (**F**) whole cell lysates.



ARHGAP39 (H-2): sc-515232. Western blot analysis of ARHGAP39 expression in HeLa (**A**) and Jurkat (**B**) nuclear extracts.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.