ARHGAP20 (K-16): sc-167114



The Power to Question

BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins. ARHGAP20 (Rho GTPase activating protein 20), also known as KIAA1391, is a 1,191 amino acid protein that contains one PH domain, one Ras-associating domain and one Rho-GAP domain. Expressed primarily in brain, but also present in lymph nodes and fetal liver, ARHGAP20 functions as a GTPase-activating protein for Rho-type GTPases, effectively converting Rho-type GTPases to an inactive, GDP-bound state. ARHGAP20 exists as multiple isoforms that are produced via alternative splicing. Chromosomal aberrations involving the ARHGAP20 gene are thought to be a cause of B cell chronic lymphocytic leukemia (B-CLL).

REFERENCES

- Nagase, T., Kikuno, R., Ishikawa, K.I., Hirosawa, M. and Ohara, O. 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.
- Katoh, M. and Katoh, M. 2003. Identification and characterization of human KIAA1391 and mouse Kiaa1391 genes encoding novel RhoGAP family proteins with RA domain and ANXL repeats. Int. J. Oncol. 23: 1471-1476.
- 3. Curry, B.J., Su, H., Law, E.G., McLaughlin, E.A., Nixon, B. and Aitken, R.J. 2004. Identification of RARhoGAP, a novel putative RhoGAP gene expressed in male germ cells. Genomics 84: 406-418.
- Kalla, C., Nentwich, H., Schlotter, M., Mertens, D., Wildenberger, K., Döhner, H., Stilgenbauer, S. and Lichter, P. 2005. Translocation t(X;11)(q13;q23) in B-cell chronic lymphocytic leukemia disrupts two novel genes. Genes Chromosomes Cancer 42: 128-143.
- Katoh, M. and Katoh, M. 2005. ARHGAP20 gene at 11q22.3-q23.1 oncogenomic recombination hot spot. Genes Chromosomes Cancer 44: 109-110.

CHROMOSOMAL LOCATION

Genetic locus: ARHGAP20 (human) mapping to 11q23.1; Arhgap20 (mouse) mapping to 9 A5.3.

SOURCE

ARHGAP20 (K-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ARHGAP20 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-167114 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

ARHGAP20 (K-16) is recommended for detection of ARHGAP20 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with other ARHGAP family members.

ARHGAP20 (K-16) is also recommended for detection of ARHGAP20 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for ARHGAP20 siRNA (h): sc-96260, ARHGAP20 siRNA (m): sc-141207, ARHGAP20 shRNA Plasmid (h): sc-96260-SH, ARHGAP20 shRNA Plasmid (m): sc-141207-SH, ARHGAP20 shRNA (h) Lentiviral Particles: sc-96260-V and ARHGAP20 shRNA (m) Lentiviral Particles: sc-141207-V.

Molecular Weight of ARHGAP20: 133 kDa.

Positive Controls: rat brain extract: sc-2392.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ARHGAP20 (K-16): sc-167114. Western blot analysis of ARHGAP20 expression in rat brain tissue extract.

STORAGE

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

PROTOCOLS

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