SANTA CRUZ BIOTECHNOLOGY, INC.

ARHGAP36 (D-14): sc-138596

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 downregulation of their active form. ARHGAP36 (Rho GTPase activating protein 36) is a 547 amino acid protein that contains one Rho-GAP domain. Conserved in chimpanzee, canine, bovine, mouse and rat, ARHGAP36 exists as five alternatively spliced isoforms and is encoded by a gene that maps to human chromosome Xq26.1. Chromosome X consists of nearly 153 million base pairs encoding approximately 1,000 genes. More than one copy of the X chromosome with a Y chromosome causes Klinefelter's syndrome. A single copy of X alone leads to Turner's syndrome. More than 2 cop-ies of the X chromosome, in the absence of a Y chromosome, is known as Triple X syndrome. Color blindness, hemophilia, and Duchenne muscular dystrophy are X chromosome-linked conditions that affect males more frequently because males carry a single X chromosome.

REFERENCES

1. Givens, J.R., et al. 1975. Features of Turner's syndrome in women with polycystic ovaries. Obstet. Gynecol. 45: 619-624.
2. Bernardino-Sgherri, J., et al. 2002. Overall DNA methylation and chromatin structure of normal and abnormal X chromosomes. Cytogenet. Genome Res. 99: 85-91.
3. Muntoni, F., et al. 2003. Dystrophin and mutations: one gene, several proteins, multiple phenotypes. Lancet Neurol. 2: 731-740.
4. Deeb, S.S. 2005. The molecular basis of variation in human color vision. Clin. Genet. 67: 369-377.
5. Bojesen, A., et al. 2006. The metabolic syndrome is frequent in Klinefelter's syndrome and is associated with abdominal obesity and hypogonadism. Diabetes Care 29: 1591-1598.
6. Hayashi, T., et al. 2006. Novel form of a single X-linked visual pigment gene in a unique dichromatic color-vision defect. Vis. Neurosci. 23: 411-417.
7. Rolle, U., et al. 2007. Duodenal atresia in an infant with triple-X syndrome: a new associated malformation in 47,XXX. Birth Defects Res. Part A Clin. Mol. Teratol. 79: 612-613.
8. Augui, S., et al. 2007. Sensing X chromosome pairs before X inactivation via a novel X-pairing region of the Xic. Science 318: 1632-1636.

CHROMOSOMAL LOCATION

Genetic locus: ARHGAP36 (human) mapping to Xq26.1.

SOURCE

ARHGAP36 (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ARHGAP36 of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-138596 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ARHGAP36 (D-14) is recommended for detection of ARHGAP36 of human origin by Western Blotting (starting dilution 1:200, 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).

ARHGAP36 (D-14) is also recommended for detection of ARHGAP36 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ARHGAP36 siRNA (h): sc-90962, ARHGAP36 shRNA Plasmid (h): sc-90962-SH and ARHGAP36 shRNA (h) Lentiviral Particles: sc-90962-V.

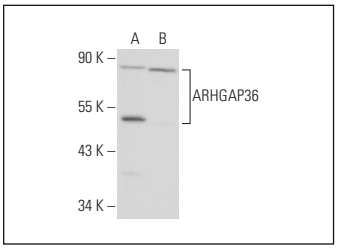
Molecular Weight of ARHGAP36: 62 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206 or Hep G2 cell lysate: sc-2227.

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



ARHGAP36 (D-14): sc-138596. Western blot analysis of ARHGAP36 expression in MCF7 (**A**) and Hep G2 (**B**) whole cell lysates.

RESEARCH USE

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