

KIAA1033 (P-19): sc-139585

BACKGROUND

KIAA1033 is a 1,173 amino acid protein that belongs to the WASHS7 family. KIAA1033 is a component of the WASH complex, which is a complex found at the surface of endosomes. The WASH complex recruits and activates Arp2/3 to induce actin polymerization. This complex is important for the fission of tubules that act as transport intermediates for the sorting of endosomes. Proteins that comprise the WASH complex include F-actin capping protein subunit α (CapZ- α 1/2 or 3), F-actin subunit β (CapZ- β), WASH (FAM39E, WASH2/3/4/5P or 6P), FAM21 (A/B or C), CCDC53, Strumpellin and KIAA1033. KIAA1033 contains one coiled coil domain and is post-translationally phosphorylated at serine 7. KIAA1033 exists as two alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 12q23.3. Chromosome 12 encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p, which causes facial developmental defects and seizure disorders.

REFERENCES

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- Delgado Carrasco, J., et al. 2001. Achondrogenesis type II-hypochondrogenesis: radiological features. *Case report. An. Esp. Pediatr.* 55: 553-557.
- Yokoyama, T., et al. 2003. A case of Kniest dysplasia with retinal detachment and the mutation analysis. *Am. J. Ophthalmol.* 136: 1186-1188.
- Forzano, F., et al. 2007. A familial case of achondrogenesis type II caused by a dominant COL2A1 mutation and "patchy" expression in the mosaic father. *Am. J. Med. Genet. A* 143A: 2815-2820.
- Daub, H., et al. 2008. Kinase-selective enrichment enables quantitative phosphoproteomics of the kinome across the cell cycle. *Mol. Cell* 31: 438-448.
- Wainwright, H. and Bighton, P. 2008. Visceral manifestations of hypochondrogenesis. *Virchows Arch.* 453: 203-207.

CHROMOSOMAL LOCATION

Genetic locus: KIAA1033 (human) mapping to 12q23.3; A230046K03Rik (mouse) mapping to 10 C1.

SOURCE

KIAA1033 (P-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of KIAA1033 of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-139585 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

KIAA1033 (P-19) is recommended for detection of KIAA1033 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

KIAA1033 (P-19) is also recommended for detection of KIAA1033 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for KIAA1033 siRNA (h): sc-96101, KIAA1033 siRNA (m): sc-146450, KIAA1033 shRNA Plasmid (h): sc-96101-SH, KIAA1033 shRNA Plasmid (m): sc-146450-SH, KIAA1033 shRNA (h) Lentiviral Particles: sc-96101-V and KIAA1033 shRNA (m) Lentiviral Particles: sc-146450-V.

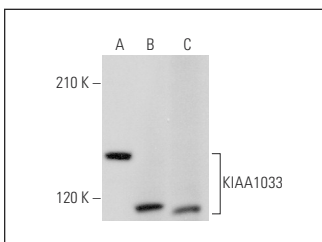
Molecular Weight of KIAA1033 isoforms: 136/99 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, mouse heart extract: sc-2254 or mouse brain extract: sc-2253.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



KIAA1033 (P-19): sc-139585. Western blot analysis of KIAA1033 expression in K-562 whole cell lysate (A) and mouse heart (B) and mouse brain (C) tissue extracts.

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.