SANTA CRUZ BIOTECHNOLOGY, INC.

PLEKHG4B (N-19): sc-248266

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

PLEKHG4B (pleckstrin homology domain containing, family G (with RhoGef domain) member 4B) is a 1,271 amino acid protein that contains one DH (DBL-homology) domain and one PH (pleckstrin homology) domain. Participating in Rho guanyl-nucleotide exchange factor activity, PLEKHG4B is encoded by a gene that maps to human chromosome 5p15.33. Chromosome 5 makes up approximately 6% of the human genome and contains 181 million base pairs, which encode 1,000 genes. Chromosome 5 is associated with Cockayne syndrome, familial adenomatous polyposis and Treacher Collins syndrome. Deletion of 5q, or chromosome 5 altogether, is common in acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

1. Dixon, M.J., et al. 1991. The gene for Treacher Collins syndrome maps to the long arm of chromosome 5. Am. J. Hum. Genet. 49: 17-22.
2. Kadmon, M., et al. 2001. Duodenal adenomatosis in familial adenomatous polyposis coli. A review of the literature and results from the Heidelberg Polyposis Register. Int. J. Colorectal Dis. 16: 63-75.
3. Marklund, L., et al. 2006. Adult-onset autosomal dominant leukodystrophy with autonomic symptoms restricted to 1.5 Mbp on chromosome 5q23. Am. J. Med. Genet. B Neuropsychiatr. Genet. 141B: 608-614.
4. Aretz, S., et al. 2007. Somatic APC mosaicism: a frequent cause of familial adenomatous polyposis (FAP). Hum. Mutat. 28: 985-992.
5. Cleaver, J.E., et al. 2007. Cockayne syndrome exhibits dysregulation of p21 and other gene products that may be independent of transcription-coupled repair. Neuroscience 145: 1300-1308.
6. Mullighan, C.G., et al. 2008. Genomic analysis of the clonal origins of relapsed acute lymphoblastic leukemia. Science 322: 1377-1380.
7. Hawthorn, L., et al. 2010. Integration of transcript expression, copy number and LOH analysis of infiltrating ductal carcinoma of the breast. BMC Cancer 10: 460.

CHROMOSOMAL LOCATION

Genetic locus: PLEKHG4B (human) mapping to 5p15.33.

SOURCE

PLEKHG4B (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of PLEKHG4B of human origin.

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-248266 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

PLEKHG4B (N-19) is recommended for detection of PLEKHG4B 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); non cross-reactive with other PLEKHG family members.

Suitable for use as control antibody for PLEKHG4B siRNA (h): sc-91766, PLEKHG4B shRNA Plasmid (h): sc-91766-SH and PLEKHG4B shRNA (h) Lentiviral Particles: sc-91766-V.

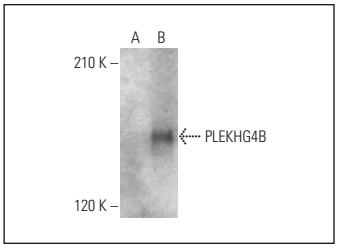
Molecular Weight of PLEKHG4B: 140 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or PLEKHG4B (h): 293T Lysate: sc-372312.

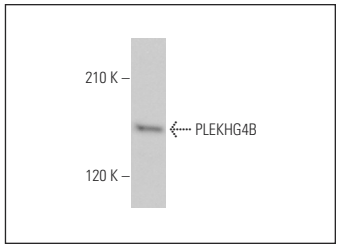
RECOMMENDED SECONDARY REAGENTS

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



PLEKHG4B (N-19): sc-248266. Western blot analysis of PLEKHG4B expression in non-transfected: sc-117752 (**A**) and human PLEKHG4B transfected: sc-372312 (**B**) 293T whole cell lysates.



PLEKHG4B (N-19): sc-248266. Western blot analysis of PLEKHG4B expression in HeLa whole cell lysate.

RESEARCH USE

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

PROTOCOLS

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