SANTA CRUZ BIOTECHNOLOGY, INC.

PLEKHN1 (T-13): sc-137679

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

PLEKHN1 (pleckstrin homology domain containing, family N member 1) is a 663 amino acid phosphoprotein that contains 2 pleckstrin homology (PH) domains. Conserved in canine, bovine, mouse and rat, PLEKHN1 exists as three alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 1p36.33. As the largest human chromosome, chromosome 1 makes up approximately 8% of the human genome and contains 260 million base pairs encoding 3,000 genes. Numerous diseases are linked to chromosome 1, such as the rare aging disease Hutchinson-Gilford progeria, familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease and Usher syndrome. Aberrations in chromosome 1 also exist in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

1. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. Cytogenet. Genome Res. 108: 217-222.
2. Marzin, Y., et al. 2006. Chromosome 1 abnormalities in multiple myeloma. Anticancer Res. 26: 953-959.
3. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. Nature 441: 315-321.
4. McClintock, D., et al. 2006. Hutchinson-Gilford progeria mutant lamin A primarily targets human vascular cells as detected by an anti-Lamin A G608G antibody. Proc. Natl. Acad. Sci. USA 103: 2154-2159.
5. Bowden, N.A., et al. 2007. Gene expression profiling in familial adenomatous polyposis adenomas and desmoid disease. Hered. Cancer Clin. Pract. 5: 79-96.
6. Meza-Zepeda, L.A., et al. 2008. High-resolution analysis of genetic stability of human adipose tissue stem cells cultured to senescence. J. Cell. Mol. Med. 12: 553-563.

CHROMOSOMAL LOCATION

Genetic locus: PLEKHN1 (human) mapping to 1p36.33.

SOURCE

PLEKHN1 (T-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of PLEKHN1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-137679 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

PLEKHN1 (T-13) is recommended for detection of PLEKHN1 isoforms 1-3 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg 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).

PLEKHN1 (T-13) is also recommended for detection of PLEKHN1 isoforms 1-3 in additional species, including canine.

Suitable for use as control antibody for PLEKHN1 siRNA (h): sc-88711, PLEKHN1 shRNA Plasmid (h): sc-88711-SH and PLEKHN1 shRNA (h) Lentiviral Particles: sc-88711-V.

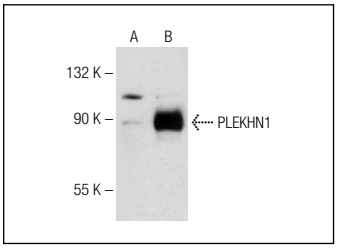
Molecular Weight of PLEKHN1 isoforms 1/2/3: 72/66/63 kDa.

Positive Controls: PLEKHN1 (h): 293T Lysate: sc-129490.

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



PLEKHN1 (T-13): sc-137679. Western blot analysis of PLEKHN1 expression in non-transfected: sc-117752 (**A**) and human PLEKHN1 transfected: sc-129490 (**B**) 293T whole cell lysates.

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.