

PLEKHN1 (D-11): sc-390657

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

- Weise, A., et al. 2005. New insights into the evolution of chromosome 1. *Cytogenet. Genome Res.* 108: 217-222.
- Marzin, Y., et al. 2006. Chromosome 1 abnormalities in multiple myeloma. *Anticancer Res.* 26: 953-959.
- Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.
- 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.

CHROMOSOMAL LOCATION

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

SOURCE

PLEKHN1 (D-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 621-642 near the C-terminus of PLEKHN1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PLEKHN1 (D-11) is available conjugated to agarose (sc-390657 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390657 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390657 PE), fluorescein (sc-390657 FITC), Alexa Fluor® 488 (sc-390657 AF488), Alexa Fluor® 546 (sc-390657 AF546), Alexa Fluor® 594 (sc-390657 AF594) or Alexa Fluor® 647 (sc-390657 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390657 AF680) or Alexa Fluor® 790 (sc-390657 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390657 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

PLEKHN1 (D-11) is recommended for detection of PLEKHN1 isoforms 1-3 of human origin by Western Blotting (starting dilution 1:100, 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).

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.

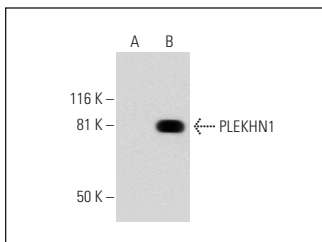
Molecular Weight of PLEKHN1 isoforms 1/2/3: 72/66/63 kDa.

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

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



PLEKHN1 (D-11): sc-390657. Western blot analysis of PLEKHN1 expression in non-transfected: sc-117752 (A) and human PLEKHN1 transfected: sc-129490 (B) 293T whole cell lysates.

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.

PROTOCOLS

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