

# PLEKHA4 (h): 293T Lysate: sc-116978

## BACKGROUND

PLEKHA4 (Pleckstrin homology domain-containing family A member 4), also known as PEPP1 (phosphoinositol 3-phosphate-binding protein 1), is a 779 amino acid protein that contains one Pleckstrin homology (PH) domain, which is found in proteins that are involved in intracellular signaling. PLEKHA4 specifically binds to PtdIns3P (phosphatidylinositol-3-phosphate), a phospholipid that resides on early endosomes, but not to other phosphoinositides. Though detected at low levels in normal skeletal muscle, small intestine, liver, heart and kidney, PLEKHA4 is found to be highly expressed in melanoma. The gene encoding PLEKHA4 maps to human chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. There are two isoforms of PLEKHA4 that are produced as a result of alternative splicing events.

## REFERENCES

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2. Dowler, S., et al. 2000. Identification of pleckstrin-homology-domain-containing proteins with novel phosphoinositide-binding specificities. *Biochem. J.* 351: 19-31.
3. Lemmon, M.A. and Ferguson, K.M. 2001. Molecular determinants in pleckstrin homology domains that allow specific recognition of phosphoinositides. *Biochem. Soc. Trans.* 29: 377-384.
4. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 607769. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>.
5. Lemmon, M.A. 2004. Pleckstrin homology domains: not just for phosphoinositides. *Biochem. Soc. Trans.* 32: 707-711.
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7. Grimwood, J., et al. 2004. The DNA sequence and biology of human chromosome 19. *Nature* 428: 529-535.
8. Subramanian, D., et al. 2010. Activation of membrane-permeant caged PtdIns<sub>3</sub>P induces endosomal fusion in cells. *Nat. Chem. Biol.* 6: 324-326.

## CHROMOSOMAL LOCATION

Genetic locus: PLEKHA4 (human) mapping to 19q13.33.

## PRODUCT

PLEKHA4 (h): 293T Lysate represents a lysate of human PLEKHA4 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## APPLICATIONS

PLEKHA4 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive PLEKHA4 antibodies. Recommended use: 10-20 µl per lane.

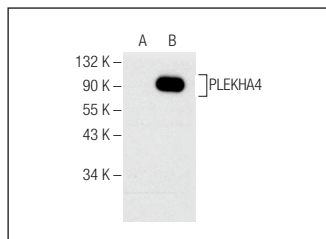
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PLEKHA4 (H-1): sc-376408 is recommended as a positive control antibody for Western Blot analysis of enhanced human PLEKHA4 expression in PLEKHA4 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## 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.

## DATA



PLEKHA4 (H-1): sc-376408. Western blot analysis of PLEKHA4 expression in non-transfected: sc-117752 (A) and human PLEKHA4 transfected: sc-116978 (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](http://www.scbt.com) for detailed protocols and support products.