

# PLEKHA4 (H-1): sc-376408

## 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

- Gilbert, F. 1997. Disease genes and chromosomes: disease maps of the human genome. *Chromosome 19. Genet. Test.* 1: 145-149.
- Dowler, S., et al. 2000. Identification of pleckstrin-homology-domain-containing proteins with novel phosphoinositide-binding specificities. *Biochem. J.* 351: 19-31.
- Lemmon, M.A., et al. 2001. Molecular determinants in pleckstrin homology domains that allow specific recognition of phosphoinositides. *Biochem. Soc. Trans.* 29: 377-384.

## CHROMOSOMAL LOCATION

Genetic locus: PLEKHA4 (human) mapping to 19q13.33; Plekha4 (mouse) mapping to 7 B4.

## SOURCE

PLEKHA4 (H-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 427-459 within an internal region of PLEKHA4 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PLEKHA4 (H-1) is available conjugated to agarose (sc-376408 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376408 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376408 PE), fluorescein (sc-376408 FITC), Alexa Fluor® 488 (sc-376408 AF488), Alexa Fluor® 546 (sc-376408 AF546), Alexa Fluor® 594 (sc-376408 AF594) or Alexa Fluor® 647 (sc-376408 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376408 AF680) or Alexa Fluor® 790 (sc-376408 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376408 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## APPLICATIONS

PLEKHA4 (H-1) is recommended for detection of PLEKHA4 of mouse, rat and 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), immunohistochemistry (including paraffin-embedded sections) (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 PLEKHA4 siRNA (h): sc-97478, PLEKHA4 siRNA (m): sc-152305, PLEKHA4 shRNA Plasmid (h): sc-97478-SH, PLEKHA4 shRNA Plasmid (m): sc-152305-SH, PLEKHA4 shRNA (h) Lentiviral Particles: sc-97478-V and PLEKHA4 shRNA (m) Lentiviral Particles: sc-152305-V.

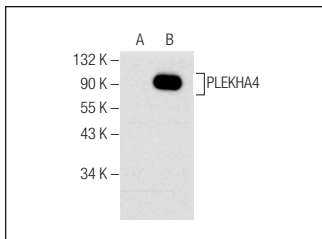
Molecular Weight of PLEKHA4: 85 kDa.

Positive Controls: PLEKHA4 (h): 293T Lysate: sc-116978.

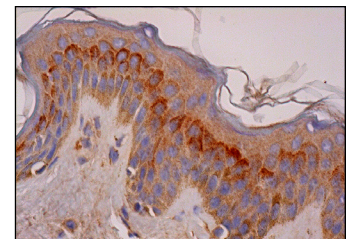
## RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## 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.



PLEKHA4 (H-1): sc-376408. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of epidermal cells.

## 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.