

PLEKHA5 (E-2): sc-390311

BACKGROUND

PLEKHA5 (pleckstrin homology domain containing, family A member 5), also known as KIAA1686 or PEPP2, is a 1,116 amino acid protein that contains one PH domain and two WW domains and is highly expressed in kidney and heart tissue. Multiple isoforms of PLEKHA5 exist due to alternative splicing events. The gene encoding PLEKHA5 maps to human chromosome 12, which encodes over 1,100 genes and comprises about 4.5% of the human genome. A number of skeletal deformities are linked to chromosome 12, including hypochondrogenesis, achondrogenesis and Kniest dysplasia. Chromosome 12 is also home to a homeobox gene cluster which encodes crucial transcription factors for morphogenesis, and the natural killer complex gene cluster encoding C-type lectin proteins which mediate the NK cell response to MHC I interaction.

CHROMOSOMAL LOCATION

Genetic locus: PLEKHA5 (human) mapping to 12p12.3; Plekha5 (mouse) mapping to 6 G2.

SOURCE

PLEKHA5 (E-2) is a mouse monoclonal antibody raised against amino acids 216-470 mapping within an internal region of PLEKHA5 of human origin.

PRODUCT

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

PLEKHA5 (E-2) is available conjugated to agarose (sc-390311 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390311 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390311 PE), fluorescein (sc-390311 FITC), Alexa Fluor® 488 (sc-390311 AF488), Alexa Fluor® 546 (sc-390311 AF546), Alexa Fluor® 594 (sc-390311 AF594) or Alexa Fluor® 647 (sc-390311 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390311 AF680) or Alexa Fluor® 790 (sc-390311 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

PLEKHA5 (E-2) is recommended for detection of PLEKHA5 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 PLEKHA5 siRNA (h): sc-95837, PLEKHA5 siRNA (m): sc-152306, PLEKHA5 shRNA Plasmid (h): sc-95837-SH, PLEKHA5 shRNA Plasmid (m): sc-152306-SH, PLEKHA5 shRNA (h) Lentiviral Particles: sc-95837-V and PLEKHA5 shRNA (m) Lentiviral Particles: sc-152306-V.

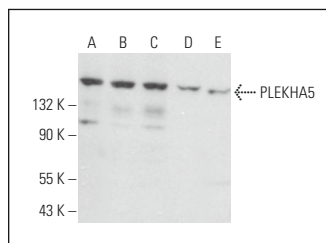
Molecular Weight of PLEKHA5: 127 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NTERA-2 cl.D1 whole cell lysate: sc-364181 or A549 cell lysate: sc-2413.

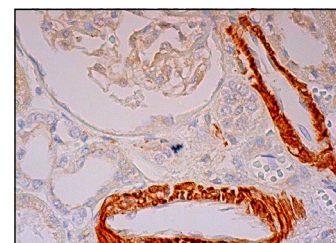
RECOMMENDED SUPPORT REAGENTS

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



PLEKHA5 (E-2): sc-390311. Western blot analysis of PLEKHA5 expression in HeLa (A), NTERA-2 cl.D1 (B), A549 (C), AMJZ-C8 (D) and C2C12 (E) whole cell lysates.



PLEKHA5 (E-2): sc-390311. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of smooth muscle cells.

SELECT PRODUCT CITATIONS

- Pandya, N.J., et al. 2017. Correlation profiling of brain sub-cellular proteomes reveals co-assembly of synaptic proteins and subcellular distribution. *Sci. Rep.* 7: 12107.
- Cox, L.L., et al. 2018. Mutations in the epithelial cadherin-p120-catenin complex cause mendelian non-syndromic cleft lip with or without cleft palate. *Am. J. Hum. Genet.* 102: 1143-1157.
- Liu, J., et al. 2020. Characterization of BRCA1-deficient premalignant tissues and cancers identifies PLEKHA5 as a tumor metastasis suppressor. *Nat. Commun.* 11: 4875.
- Cao, X., et al. 2022. Proximity labeling reveals spatial regulation of the anaphase-promoting complex/cyclosome by a microtubule adaptor. *ACS Chem. Biol.* 17: 2605-2618.

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.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA