

Phocein (D-5): sc-137229

BACKGROUND

Phocein (preimplantation protein 3, Mps1 binder kinase activator-like 3, 2C4D) is a 225 amino acid protein encoded by the human gene MOBKL3. Phocein belongs to the MOB1/Phocein family and is phosphorylated on serine residues. Phocein is a widely expressed, highly conserved intracellular protein. The sequence of Phocein has limited homology to the α subunits from Clathrin adaptor complexes and contains an additional stretch bearing a putative SH3-binding domain. Phocein is usually associated with membranes but can be present in the cytosol, where it behaves as a protein complex. Phocein is the major partner of the striatin family members, which are scaffolding proteins involved in signaling and trafficking. Due to its association with Dynamin via direct interactions with nucleotide diphosphate kinase (NDPK) and Eps15, Phocein has been implicated in vesicular trafficking, acting in particular in the endocytic process.

REFERENCES

1. Baillat, G., et al. 2001. Molecular cloning and characterization of Phocein, a protein found from the Golgi complex to dendritic spines. *Mol. Biol. Cell* 12: 663-673.
2. Moreno, C.S., et al. 2001. A mammalian homolog of yeast MOB1 is both a member and a putative substrate of striatin family-protein phosphatase 2A complexes. *J. Biol. Chem.* 276: 24253-24260.
3. Baillat, G., et al. 2002. Interactions of Phocein with nucleoside-diphosphate kinase, Eps15, and Dynamin I. *J. Biol. Chem.* 277: 18961-18966.
4. Blondeau, C., et al. 2003. Expression and distribution of Phocein and members of the striatin family in neurones of rat peripheral ganglia. *Histochem. Cell Biol.* 119: 131-138.

CHROMOSOMAL LOCATION

Genetic locus: MOB4 (human) mapping to 2q33.1; Mob4 (mouse) mapping to 1 C1.2.

SOURCE

Phocein (D-5) is a mouse monoclonal antibody raised against amino acids 1-225 representing full length Phocein of human origin.

PRODUCT

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

Phocein (D-5) is available conjugated to agarose (sc-137229 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-137229 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-137229 PE), fluorescein (sc-137229 FITC), Alexa Fluor® 488 (sc-137229 AF488), Alexa Fluor® 546 (sc-137229 AF546), Alexa Fluor® 594 (sc-137229 AF594) or Alexa Fluor® 647 (sc-137229 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-137229 AF680) or Alexa Fluor® 790 (sc-137229 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Phocein (D-5) is recommended for detection of Phocein of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 Phocein siRNA (h): sc-76123, Phocein siRNA (m): sc-76124, Phocein shRNA Plasmid (h): sc-76123-SH, Phocein shRNA Plasmid (m): sc-76124-SH, Phocein shRNA (h) Lentiviral Particles: sc-76123-V and Phocein shRNA (m) Lentiviral Particles: sc-76124-V.

Molecular Weight of Phocein: 26 kDa.

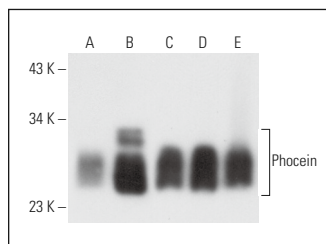
Positive Controls: HeLa whole cell lysate: sc-2200, JAR cell lysate: sc-2276 or Phocein (m): 293T Lysate: sc-122546.

RECOMMENDED SUPPORT REAGENTS

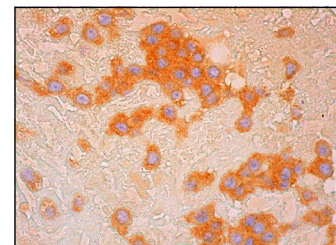
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Phocein (D-5): sc-137229. Western blot analysis of Phocein expression in non-transfected 293T: sc-117752 (A), mouse Phocein transfected 293T: sc-122546 (B), HeLa (C), JAR (D) and H4 (E) whole cell lysates.



Phocein (D-5): sc-137229. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of decidual 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.