SANTA CRUZ BIOTECHNOLOGY, INC.

Phocein (m): 293T Lysate: sc-122546

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 σ 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., Moqrich, A., Castets, F., Baude, A., Bailly, Y., Benmerah, A. and Monneron, A. 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., Lane, W.S. and Pallas, D.C. 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., Gaillard, S., Castets, F. and Monneron, A. 2002. Interactions of Phocein with nucleoside-diphosphate kinase, Eps15, and Dynamin I. J. Biol. Chem. 277: 18961-18966.
4. Blondeau, C., Gaillard, S., Ternaux, J.P., Monneron, A. and Baude, A. 2003. Expression and distribution of Phocein and members of the striatin family in neurones of rat peripheral ganglia. Histochem. Cell Biol. 119: 131-138.
5. Ponchon, L., Dumas, C., Kajava, A.V., Fesquet, D. and Padilla, A. 2004. NMR solution structure of Mob1, a mitotic exit network protein and its interaction with an NDR kinase peptide. J. Mol. Biol. 337: 167-182.
6. Haeberlé, A.M., Castets, F., Bombarde, G., Baillat, G. and Bailly, Y. 2006. Immunogold localization of Phocein in dendritic spines. J. Comp. Neurol. 495: 336-350.
7. Castets, F. and Bailly, Y.J. 2007. Phocein: a potential actor in vesicular trafficking at Purkinje cell dendritic spines. Cerebellum 6: 344-352.

CHROMOSOMAL LOCATION

Genetic locus: Mob4 (mouse) mapping to 1 C1.2.

PRODUCT

Phocein (m): 293T Lysate represents a lysate of mouse Phocein 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

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

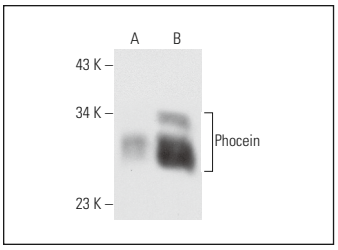
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Phocein (C-4): sc-137228 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Phocein expression in Phocein transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

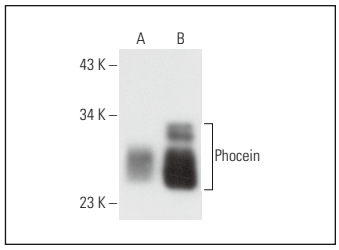
RECOMMENDED SUPPORT REAGENTS

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



Phocein (C-4): sc-137228. Western blot analysis of Phocein expression in non-transfected: sc-117752 (**A**) and mouse Phocein transfected: sc-122546 (**B**) 293T whole cell lysates.



Phocein (D-5): sc-137229. Western blot analysis of Phocein expression in non-transfected: sc-117752 (**A**) and mouse Phocein transfected: sc-122546 (**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 for detailed protocols and support products.