SANTA CRUZ BIOTECHNOLOGY, INC.

Phocein siRNA (h): sc-76123

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., 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.
5. Ponchon, L., et al. 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.

CHROMOSOMAL LOCATION

Genetic locus: MOB4 (human) mapping to 2q33.1.

PRODUCT

Phocein siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Phocein shRNA Plasmid (h): sc-76123-SH and Phocein shRNA (h) Lentiviral Particles: sc-76123-V as alternate gene silencing products.

For independent verification of Phocein (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-76123A, sc-76123B and sc-76123C.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

Phocein siRNA (h) is recommended for the inhibition of Phocein expression in human cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

GENE EXPRESSION MONITORING

Phocein (D-5): sc-137229 is recommended as a control antibody for monitoring of Phocein gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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) 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Phocein gene expression knockdown using RT-PCR Primer: Phocein (h)-PR: sc-76123-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.