

syntenin-1 siRNA (m): sc-42165

BACKGROUND

Syntenin-1 (also known as syntenin, syndecan binding protein, melanoma differentiation-associated protein 9 or proTGF α cytoplasmic domain-interacting protein 18) is a protein that binds to the cytoplasmic domains of the syndecans in yeast two-hybrid screens and other assays. Syntenin-1 contains a tandem repeat of PDZ domains that reacts with the FYA (Phe-Tyr-Ala) carboxy-terminal amino acid sequence of the syndecans. It may function as an adaptor that couples syndecans to cytoskeletal proteins or cytosolic downstream signal-effectors. Syntenin-1 co-localizes and interacts specifically with immature, intracellular forms of proTGF α . It is a human γ interferon responsive protein. Syntenin-1 contains PSD-95/Discs large/zO-1 (PDZ) domains and associates with the cytoplasmic tail of the IL-5R α . It directly associates with the transcription factor Sox4. The PDZ proteins PICK1, GRIP, ABP and syntenin-1 bind multiple glutamate receptor subtypes.

REFERENCES

1. Grootjans, J.J., et al. 1997. Syntenin, a PDZ protein that binds syndecan cytoplasmic domains. *Proc. Natl. Acad. Sci. USA* 94: 13683-13688.
2. Lin, J.J., et al. 1998. Melanoma differentiation associated gene-9, MDA-9, is a human γ interferon responsive gene. *Gene* 207: 105-110.
3. Fernandez-Larrea, J., et al. 1999. A role for a PDZ protein in the early secretory pathway for the targeting of proTGF α to the cell surface. *Mol. Cell* 3: 423-433.
4. Geijsen, N., et al. 2001. Cytokine-specific transcriptional regulation through an IL-5R α interacting protein. *Science* 293: 1136-1138.
5. Hirbec, H., et al. 2002. The PDZ proteins PICK1, GRIP and syntenin bind multiple glutamate receptorsubtypes: analysis of PDZ binding motifs. *J. Biol. Chem.* 277: 15221-15224.

CHROMOSOMAL LOCATION

Genetic locus: Sdcbp (mouse) mapping to 4 A1.

PRODUCT

syntenin-1 siRNA (m) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see syntenin-1 shRNA Plasmid (m): sc-42165-SH and syntenin-1 shRNA (m) Lentiviral Particles: sc-42165-V as alternate gene silencing products.

For independent verification of syntenin-1 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-42165A, sc-42165B and sc-42165C.

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.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

syntenin-1 siRNA (m) is recommended for the inhibition of syntenin -1 expression in mouse 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 μ M in 66 μ l. 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

syntenin-1 (C-3): sc-515538 is recommended as a control antibody for monitoring of syntenin-1 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-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) 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor syntenin-1 gene expression knockdown using RT-PCR Primer: syntenin-1 (m)-PR: sc-42165-PR (20 μ l, 512 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.