

SNX6 siRNA (h): sc-41357

BACKGROUND

Two related proteins, TRAF1 and TRAF2 (TNF receptor-associated factors 1 and 2, respectively), form a heterodimeric complex that associates with the cytoplasmic domain of the tumor necrosis factor (TNF) receptor type 2. A third member of this family, TRAF3 (also designated CD40bp or CRAF1) associates with the cytoplasmic domain of CD40. Additional members of the TRAF/CRAF family of signaling intermediates include TRAF4 (also designated CART1), TRAF5 and TRAF6. TRAF4 associated factor 2 (TRAF4-AF2), also designated sorting nexin 6 (SNX6), is a member of the sorting nexin family of molecules, which are widely expressed and associate with various receptor.

REFERENCES

1. Rothe, M., Wong, S.C., Henzel, W.J. and Goeddel, D.V. 1994. A novel family of putative signal transducers associated with the cytoplasmic domain of the 75 kDa tumor necrosis factor receptor. *Cell* 78: 681-692.
2. Cheng, G., Cleary, A.M., Ye, Z.S., Hong, D.I., Lederman, S. and Baltimore, D. 1995. Involvement of CRAF1, a relative of TRAF, in CD40 signaling. *Science* 267: 1494-1498.
3. Tomasetto, C., Regnier, C., Moog-Lutz, C., Mattei, M.G., Chenard, M.P., Lidereau, R., Basset, P. and Rio, M.C. 1995. Identification of four novel human genes amplified and overexpressed in breast carcinoma and localized to the q11-q21.3 region of chromosome 17. *Genomics* 28: 367-376.
4. Cao, Z., Xiong, J., Takeuchi, M., Kurama, T. and Goeddel, D.V. 1996. TRAF6 is a signal transducer for interleukin-1. *Nature* 383: 443-446.
5. Mizushima, S., Fujita, M., Ishida, T., Azuma, S., Kato, K., Hirai, M., Otsuka, M., Yamamoto, T. and Inoue, J. 1998. Cloning and characterization of a cDNA encoding the human homolog of tumor necrosis factor receptor-associated factor 5 (TRAF5). *Gene* 207: 135-140.
6. Haft, C.R., de la Luz Sierra, M., Barr, V.A., Haft, D.H. and Taylor, S.I. 1998. Identification of a family of sorting nexin molecules and characterization of their association with receptors. *Mol. Cell. Biol.* 18: 7278-7287.

CHROMOSOMAL LOCATION

Genetic locus: SNX6 (human) mapping to 14q13.1.

PRODUCT

SNX6 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SNX6 shRNA Plasmid (h): sc-41357-SH and SNX6 shRNA (h) Lentiviral Particles: sc-41357-V as alternate gene silencing products.

For independent verification of SNX6 (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-41357A, sc-41357B and sc-41357C.

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

SNX6 siRNA (h) is recommended for the inhibition of SNX6 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 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

SNX6 (D-5): sc-365965 is recommended as a control antibody for monitoring of SNX6 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 SNX6 gene expression knockdown using RT-PCR Primer: SNX6 (h)-PR: sc-41357-PR (20 μ l). 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.