SANTA CRUZ BIOTECHNOLOGY, INC.

TIAF-1 siRNA (h): sc-76660

BACKGROUND

TIAF-1 (TGFβ1-induced antiapoptotic factor 1), also known as MYO18A, MAJN or MYSPDZ, is a TGFβ1-induced anti-apoptotic factor that localizes to the nucleus and functions to inhibit the cytotoxic effects of TNFα, TRADD and FADD. Two isoforms of mouse TIAF-1 exist and are designated MysPDZ-α and MysPDZ-β. MysPDZ-α consists of a KE-rich region, an N-terminal PDZ domain and a prevalent myosin homologous head region, while the MysPDZ-β isoform lacks the KE-rich region and PDZ domain. MysPDZ-α is present in most tissues and is known to co-localize with the ER-Golgi complex and with membrane ruffles and filopodia. MysPDZ-β is expressed specifically in hematopoietic tissues and cell lines and shows dispersed localization in the cytoplasm.

REFERENCES

1. Mori, K., et al. 2003. Genome structure and differential expression of two isoforms of a novel PDZ-containing myosin (MysPDZ) (Myo18A). J. Biol. Chem. 133: 405-413.
2. Cross, M., et al. 2004. A novel 110 kDa form of myosin XVIIIA (MysPDZ) is tyrosine-phosphorylated after colony-stimulating factor-1 receptor signalling. Biochem. J. 380: 243-253.
3. Yang, C.H., et al. 2005. Identification of the surfactant protein A receptor 210 as the unconventional Myosin XVIIIα. J. Biol. Chem. 280: 34447-34457.
4. Isogawa, Y., et al. 2005. The N-terminal domain of MYO18A has an ATP-insensitive actin-binding site. Biochemistry 44: 6190-6196.
5. Mori, K., et al. 2005. Subcellular localization and dynamics of MysPDZ (Myo18A) in live mammalian cells. Biochem. Biophys. Res. Commun. 326: 491-498.
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CHROMOSOMAL LOCATION

Genetic locus: TIAF1 (human) mapping to 17q11.2.

PRODUCT

TIAF-1 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 TIAF-1 shRNA Plasmid (h): sc-76660-SH and TIAF-1 shRNA (h) Lentiviral Particles: sc-76660-V as alternate gene silencing products.

For independent verification of TIAF-1 (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-76660A, sc-76660B and sc-76660C.

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

TIAF-1 siRNA (h) is recommended for the inhibition of TIAF-1 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor TIAF-1 gene expression knockdown using RT-PCR Primer: TIAF-1 (h)-PR: sc-76660-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.