SANTA CRUZ BIOTECHNOLOGY, INC.

TNFα-IP 8L1 siRNA (h): sc-76700

BACKGROUND

Tumor necrosis factor, α-induced protein 8-like 1, also known as TNFα-IP 8L1, is a 186 amino acid protein belonging to the TNFα-IP 8 family. Members of the TNFα-IP 8 family are induced by nuclear factor-κB 9 (NFκB) and tumor necrosis factor (TNF), although induction by TNF is dependent upon NFκB activation. TNFα-IP 8 proteins also act as a negative mediator of apoptosis and may play a role in tumor progression. They suppress TNF-mediated apoptosis by inhibiting caspase-8 activity but not the processing of procaspase-8, subsequently resulting in inhibition of BID cleavage and caspase-3 activation.

REFERENCES

1. Cross, S.J., et al. 1991. Novel detection of restriction fragment length polymorphisms in the human major histocompatibility complex. Immunogenetics 34: 376-384.
2. Patel, S., et al. 1997. Identification of seven differentially displayed transcripts in human primary and matched metastatic head and neck squamous cell carcinoma cell lines: implications in metastasis and/or radiation response. Oral Oncol. 33: 197-203.
3. Horrevoets, A.J., et al. 1999. Vascular endothelial genes that are responsive to tumor necrosis factor-α *in vitro* are expressed in atherosclerotic lesions, including inhibitor of apoptosis protein-1, stannin, and two novel genes. Blood 93: 3418-3431.
4. Kumar, D., et al. 2000. Identification of a novel tumor necrosis factor-α-inducible gene, SCC-S2, containing the consensus sequence of a death effector domain of fas-associated death domain-like interleukin- 1β-converting enzyme-inhibitory protein. J. Biol. Chem. 275: 2973-2978.
5. You, Z., et al. 2001. Nuclear factor-κ B-inducible death effector domain-containing protein suppresses tumor necrosis factor-mediated apoptosis by inhibiting caspase-8 activity. J. Biol. Chem. 276: 26398-26404.
6. Kumar, D., et al. 2004. Expression of SCC-S2, an antiapoptotic molecule, correlates with enhanced proliferation and tumorigenicity of MDA-MB 435 cells. Oncogene 23: 612-616.
7. Zhang, C., et al. 2006. Role of SCC-S2 in experimental metastasis and modulation of VEGFR-2, MMP-1, and MMP-9 expression. Mol. Ther. 13: 947-955.

CHROMOSOMAL LOCATION

Genetic locus: TNFAIP8L1 (human) mapping to 19p13.3.

PRODUCT

TNFα-IP 8L1 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 TNFα-IP 8L1 shRNA Plasmid (h): sc-76700-SH and TNFα-IP 8L1 shRNA (h) Lentiviral Particles: sc-76700-V as alternate gene silencing products.

For independent verification of TNFα-IP 8L1 (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-76700A, sc-76700B and sc-76700C.

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

TNFα-IP 8L1 siRNA (h) is recommended for the inhibition of TNFα-IP 8L1 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 TNFα-IP 8L1 gene expression knockdown using RT-PCR Primer: TNFα-IP 8L1 (h)-PR: sc-76700-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Zhao, P., et al. 2019. TIPE1 promotes cervical cancer progression by repression of p53 acetylation and is associated with poor cervical cancer outcome. Carcinogenesis 40: 592-599.
2. Yang, C., et al. 2019. SCC-S2 facilitates tumor proliferation and invasion via activating Wnt signaling and depressing hippo signaling in colorectal cancer cells and predicts poor prognosis of patients. J. Histochem. Cytochem. 67: 65-75.

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.