

TNF α -IP 8 siRNA (h): sc-76698

BACKGROUND

TNF α -IP 8 (tumor necrosis factor, α -induced protein 8), also known as NF κ B-inducible DED-containing protein (NDED), SCC-S2 or TNF-induced protein GG2-1, is a 198 amino acid cytoplasmic protein induced by NF κ B and TNF. The induction of TNF α -IP 8 by TNF is dependent on the activation of NF κ B. TNF α -IP 8 negatively mediates apoptosis and may also play a role in tumor progression. TNF α -IP 8 specifically inhibits caspase-8 activity, which results in the inhibition of BID cleavage and caspase-3 activation during TNF-mediated apoptosis. TNF α -IP 8 is expressed at high levels in thymus, bone marrow, lymph node, spleen, thyroid, placenta and various tumor tissues, as well as fetal lung, liver and kidney. TNF α -IP 8 is present as three isoforms produced by alternative splicing.

REFERENCES

1. 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.
2. 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-1 β -converting enzyme-inhibitory protein. *J. Biol. Chem.* 275: 2973-2978.
3. 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.
4. Online Mendelian Inheritance in Man, OMIM[™]. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 612111. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Zhang, L.J., et al. 2009. A chicken ovalbumin upstream promoter transcription factor I (COUP-TFI) complex represses expression of the gene encoding tumor necrosis factor α -induced protein 8 (TNFAIP8). *J. Biol. Chem.* 284: 6156-6168.

CHROMOSOMAL LOCATION

Genetic locus: TNFAIP8 (human) mapping to 5q23.1.

PRODUCT

TNF α -IP 8 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 TNF α -IP 8 shRNA Plasmid (h): sc-76698-SH and TNF α -IP 8 shRNA (h) Lentiviral Particles: sc-76698-V as alternate gene silencing products.

For independent verification of TNF α -IP 8 (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-76698A, sc-76698B and sc-76698C.

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

TNF α -IP 8 siRNA (h) is recommended for the inhibition of TNF α -IP 8 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor TNF α -IP 8 gene expression knockdown using RT-PCR Primer: TNF α -IP 8 (h)-PR: sc-76698-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.