

Abin-2 siRNA (m): sc-44639

BACKGROUND

The nuclear factor NF κ B is essential for the regulation of immune response genes, inflammatory processes and apoptosis. Abin-2 (also designated A20-binding inhibitor of NF κ B activation 2) is an intracellular zinc-finger protein that inhibits the expression of NF κ B by recruiting a chromatin-remodeling complex to the target gene. Abin-2, a p105-associated protein, is a potent inhibitor of TNF-induced cell death. Abin-2 can also associate with TPL-2, and in endogenous tissues it is frequently associated with both TPL-2 and p105. siRNA depletion of Abin-2 has been found to reduce levels of TPL-2 but not of p105, which indicates that Abin-2 is involved in the TLR4 signaling pathway. Abin-2 inhibits endothelial apoptosis, but upon deletion of the carboxy-terminus of the protein, its ability to inhibit apoptosis is removed.

REFERENCES

1. Wu, W.S., et al. 2002. The promyelocytic leukemia protein represses A20-mediated transcription. *J. Biol. Chem.* 277: 31734-31739.
2. Tados, A., et al. 2003. ABIN-2 protects endothelial cells from death and has a role in the antiapoptotic effect of angiopoietin-1. *Blood* 102: 4407-4409.
3. Hughes, D.P., et al. 2003. The antiinflammatory endothelial tyrosine kinase Tie2 interacts with a novel nuclear factor- κ B inhibitor ABIN-2. *Circ. Res.* 92: 630-636.
4. Chien, C.Y., et al. 2003. The A20-binding protein ABIN-2 exerts unexpected function in mediating transcriptional coactivation. *FEBS Lett.* 543: 55-60.
5. Lang, V., et al. 2004. ABIN-2 forms a ternary complex with TPL-2 and NF κ B1 p105 and is essential for TPL-2 protein stability. *Mol. Cell. Biol.* 24: 5235-5248.

CHROMOSOMAL LOCATION

Genetic locus: Trnp2 (mouse) mapping to 5 B2.

PRODUCT

Abin-2 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 Abin-2 shRNA Plasmid (m): sc-44639-SH and Abin-2 shRNA (m) Lentiviral Particles: sc-44639-V as alternate gene silencing products.

For independent verification of Abin-2 (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-44639A, sc-44639B and sc-44639C.

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

Abin-2 siRNA (m) is recommended for the inhibition of Abin-2 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Abin-2 gene expression knockdown using RT-PCR Primer: Abin-2 (m)-PR: sc-44639-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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.