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# Zuschläge

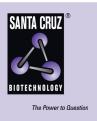
- Mindermengenzuschlag
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# SANTA CRUZ BIOTECHNOLOGY, INC.

# Abin-2 siRNA (h): sc-44638



# BACKGROUND

The nuclear factor NF $\kappa$ B is essential for the regulation of immune response genes, inflammatory processes and apoptosis. Abin-2 (also designated A20binding inhibitor of NF $\kappa$ B activation 2) is an intracellular zinc-finger protein that inhibits the expression of NF $\kappa$ 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

- Wu, W.S., et al. 2002. The promyelocytic leukemia protein represses A20mediated transcription. J. Biol. Chem. 277: 31734-31739.
- 2. Tadros, 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 anti-inflammatory endothelial tyrosine kinase Tie2 interacts with a novel NF $\kappa$ B inhibitor Abin-2. Circ. Res. 92: 630-636.
- Chien, C.Y., et al. 2003. The A20-binding protein Abin-2 exerts unexpected function in mediating transcriptional coactivation. FEBS Lett. 543: 55-60.

## CHROMOSOMAL LOCATION

Genetic locus: TNIP2 (human) mapping to 4p16.3.

## PRODUCT

Abin-2 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Abin-2 shRNA Plasmid (h): sc-44638-SH and Abin-2 shRNA (h) Lentiviral Particles: sc-44638-V as alternate gene silencing products.

For independent verification of Abin-2 (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-44638A, sc-44638B and sc-44638C.

# STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at  $-20^{\circ}$  C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at  $-20^{\circ}$  C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330  $\mu$ l of the RNAse-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNAse-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

#### APPLICATIONS

Abin-2 siRNA (h) is recommended for the inhibition of Abin-2 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  $\mu$ M in 66  $\mu$ 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**

Abin-2 (H-8): sc-271850 is recommended as a control antibody for monitoring of Abin-2 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-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

### **RT-PCR REAGENTS**

Semi-quantitative RT-PCR may be performed to monitor Abin-2 gene expression knockdown using RT-PCR Primer: Abin-2 (h)-PR: sc-44638-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

#### SELECT PRODUCT CITATIONS

- 1. Choi, Y., et al. 2019. Severe fever with thrombocytopenia syndrome phlebovirus non-structural protein activates TPL2 signalling pathway for viral immunopathogenesis. Nat. Microbiol. 4: 429-437.
- Lou, Y. and Huang, Z. 2020. microRNA-15a-5p participates in sepsis by regulating the inflammatory response of macrophages and targeting TNIP2. Exp. Ther. Med. 19: 3060-3068.

#### **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.