

YAF2 siRNA (h): sc-95916

BACKGROUND

Members of the myelocytomatosis viral oncogene homologue (Myc) family, which include c-Myc, N-Myc and L-Myc, encode transcription factors that play a role in the acceleration of cell cycle progression and cell growth, inhibition of cell differentiation, and initiation of programmed cell death (apoptosis). YY1-associated factor 2, also known as YAF2, is a 180 amino acid protein that binds to c-Myc and inhibits c-Myc-mediated pathways. It also binds to N-Myc, enhancing N-Myc-dependent transcriptional activation. Furthermore, YAF2 interacts with YY1 to antagonize YY1 transactivation of muscle-specific promoters. Localized to the nucleus, YAF2 contains an N-terminal C2-X10-C2 zinc finger and exists as two isoforms.

REFERENCES

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3. Sawa, C., et al. 2002. YEAF1/RYPB and YAF2 are functionally distinct members of a cofactor family for the YY1 and E4TF1/hGABP transcription factors. *J. Biol. Chem.* 277: 22484-22490.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607534. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Mädge, B., et al. 2003. YAF2 inhibits Myc biological function. *Cancer Lett.* 193: 171-176.
6. Kaneko, T., et al. 2003. The mouse YAF2 gene generates two distinct transcripts and is expressed in pre- and postimplantation embryos. *Gene* 315: 183-192.
7. Stanton, S.E., et al. 2006. YAF2 inhibits caspase 8-mediated apoptosis and regulates cell survival during zebrafish embryogenesis. *J. Biol. Chem.* 281: 28782-28793.

CHROMOSOMAL LOCATION

Genetic locus: YAF2 (human) mapping to 12q12.

PRODUCT

YAF2 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 YAF2 shRNA Plasmid (h): sc-95916-SH and YAF2 shRNA (h) Lentiviral Particles: sc-95916-V as alternate gene silencing products.

For independent verification of YAF2 (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-95916A, sc-95916B and sc-95916C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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

YAF2 siRNA (h) is recommended for the inhibition of YAF2 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 YAF2 gene expression knockdown using RT-PCR Primer: YAF2 (h)-PR: sc-95916-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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