

Apollon siRNA (h): sc-60194

BACKGROUND

Inhibitor of apoptosis proteins (IAP) are a family of proteins that have baculovirus IAP repeat (BIR) domains and inhibits apoptosis. Apollon (also known as BRUCE or baculoviral IAP repeat-containing protein 6 (BIRC6)) is a large protein that binds to, ubiquitinates and facilitates proteasomal degradation of second mitochondria-derived activator of caspase (Smac) and caspase-9. Apollon can be associated with the membrane of the Golgi system and is expressed in brain cancer cells. Apollon may play a role in tumorigenesis and drug resistance of some brain cancer cell lines.

REFERENCES

1. Chen, Z., Naito, M., Hori, S., Mashima, T., Yamori, T. and Tsuruo, T. 1999. A human IAP-family gene, Apollon, expressed in human brain cancer cells. *Biochem. Biophys. Res. Commun.* 264: 847-854.
2. Hao, Y., Sekine, K., Kawabata, A., Nakamura, H., Ishioka, T., Ohata, H., Noda, T., Katayama, R., Hashimoto, C., Zhang, X., Tsuruo, T. and Naito, M. 2004. Apollon ubiquitinates Smac and caspase-9, and has an essential cytoprotection function. *Nat. Cell Biol.* 6: 849-860.
3. Hitz, C., Vogt-Weisenhorn, D., Ruiz, P., Wurst, W. and Floss, T. 2005. Progressive loss of the spongiotrophoblast layer of BIRC6/BRUCE mutants results in embryonic lethality. *Genesis* 42: 91-103.
4. Ren, J., Shi, M., Liu, R., Yang, Q.H., Johnson, T., Skarnes, W.C. and Du, C. 2005. The BIRC6 (BRUCE) gene regulates p53 and the mitochondrial pathway of apoptosis and is essential for mouse embryonic development. *Proc. Natl. Acad. Sci. USA* 102: 565-570.

CHROMOSOMAL LOCATION

Genetic locus: BIRC6 (human) mapping to 2p22.3.

PRODUCT

Apollon 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 Apollon shRNA Plasmid (h): sc-60194-SH and Apollon shRNA (h) Lentiviral Particles: sc-60194-V as alternate gene silencing products.

For independent verification of Apollon (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-60194A, sc-60194B and sc-60194C.

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

Apollon siRNA (h) is recommended for the inhibition of Apollon 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.

GENE EXPRESSION MONITORING

Apollon (F-10): sc-390616 is recommended as a control antibody for monitoring of Apollon 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-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Apollon gene expression knockdown using RT-PCR Primer: Apollon (h)-PR: sc-60194-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.