SANTA CRUZ BIOTECHNOLOGY, INC.

DAPK2 siRNA (m): sc-38979

BACKGROUND

Death-associated protein kinase 2 (DAPK2), also designated death-associated protein kinase-related protein-1 (DRP-1), is a calcium/calmodulin-regulated serine/threonine kinase that binds to calmodulin, undergoes autophosphorylation in response to an increase in cellular calcium concentration, and phosphorylated myosin light chain (MLC) as an exogenous substrate. DAPK2 is expressed in heart, lung, and skeletal muscle and is localized to the cytoplasm. DAPK2 displays significant homology to DAP-kinase, which mediates interferon (IFN)-γ-induced apoptosis in HeLa. Subsequently, DAPK2 is thought to function as a possible tumor suppressor gene.

REFERENCES

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4. Kawai, T., et al. 1998. ZIP kinase, a novel serine/threonine kinase which mediates apoptosis. Mol. Cell. Biol. 18: 1642-1651.
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8. Jang, W.S., et al. 2003. Expression of a novel type I keratin, DAPK-1 in the dorsal aorta and pronephric duct of the zebrafish embryos. Gene 312: 145-150.
9. Narayan, G., et al. 2003. Frequent promoter methylation of CDH1, DAPK, RARB, and HIC1 genes in carcinoma of cervix uteri: its relationship to clinical outcome. Mol. Cancer 2: 24.

CHROMOSOMAL LOCATION

Genetic locus: Dapk2 (mouse) mapping to 9 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.

PRODUCT

DAPK2 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see DAPK2 shRNA Plasmid (m): sc-38979-SH and DAPK2 shRNA (m) Lentiviral Particles: sc-38979-V as alternate gene silencing products.

For independent verification of DAPK2 (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-38979A, sc-38979B and sc-38979C.

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

DAPK2 siRNA (m) is recommended for the inhibition of DAPK2 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 µM in 66 µl. 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 DAPK2 gene expression knockdown using RT-PCR Primer: DAPK2 (m)-PR: sc-38979-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.