SANTA CRUZ BIOTECHNOLOGY, INC.

DJBP siRNA (m): sc-143052

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The Power to Question

BACKGROUND

DJ-1 was first identified as a novel oncogene that transforms mouse NIH/3T3 cells in cooperation with activated Ras. Also, DJ-1 positively regulates androgen receptor (AR) by forming a complex with PIASx, a negative regulator of AR. Mutations in the DJ-1 gene have been implicated in Parkinson's disease, and loss of DJ-1 function leads to neurodegeneration. DJBP (DJ-1-binding protein), also known as EF-hand calcium-binding domain-containing protein 6, is a 1,501 amino acid protein that binds the C-terminal region of DJ-1, as well as the DNA binding region of AR. With specific expression in testis, DJBP forms a ternary complex with DJ-1 and AR and colocalizes to the nucleus. Unlike PIASx, DJBP1 acts as an antagonist of DJ-1 by negatively regulating testosterone-dependent AR transactivation activity via recruitment of a histone deacetylase complex. There are six isoforms of DJBP which exist as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Efcab6 (mouse) mapping to 15 E2.

PROTOCOLS

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

PRODUCT

DJBP siRNA (m) is a target-specific 19-25 nt siRNA 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 DJBP shRNA Plasmid (m): sc-143052-SH and DJBP shRNA (m) Lentiviral Particles: sc-143052-V as alternate gene silencing products.

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

DJBP siRNA (m) is recommended for the inhibition of DJBP 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 DJBP gene expression knockdown using RT-PCR Primer: DJBP (m)-PR: sc-143052-PR (20 µl). 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.