SANTA CRUZ BIOTECHNOLOGY, INC.

N4BP2 siRNA (h): sc-89160

BACKGROUND

N4BP2 (NEDD4-binding protein 2), also known as B3BP (Bcl-3-binding protein), is a 1,770 amino acid cytoplasmic protein that possesses 5'-polynucleotide kinase and nicking endonuclease activity, and is thought to function in DNA repair. Containing one CUE domain and an Smr domain, N4BP2 exists as two alternatively spliced isoforms and undergoes post-translational ubiquitination. N4BP2 has the ability to bind Bcl-3, NEDD4 and CBP, and is encoded by a gene that maps to human chromosome 4p14. Chromosome 4 represents approximately 6% of the human genome and contains nearly 900 genes. Notably, the Huntingtin gene, which is found to encode an expanded glutamine tract in cases of Huntington's disease, is on chromosome 4. FGFR-3 is also encoded on chromosome 4 and has been associated with thanatophoric dwarfism, achondroplasia, Muenke syndrome and bladder cancer. Chromosome 4 is also tied to Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

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3. Krakow, D., et al. 2000. Exclusion of the Ellis-van Creveld region on chromosome 4p16 in some families with asphyxiating thoracic dystrophy and short-rib polydactyly syndromes. Eur. J. Hum. Genet. 8: 645-648.
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6. Watanabe, N., et al. 2003. Identification and characterization of Bcl-3-binding protein: implications for transcription and DNA repair or recombination. J. Biol. Chem. 278: 26102-26110.
7. Zheng, M.Z., et al. 2007. Haplotype of gene Nedd4 binding protein 2 associated with sporadic nasopharyngeal carcinoma in the Southern Chinese population. J. Transl. Med. 5: 36.
8. Lee, M.G., et al. 2007. Demethylation of H3K27 regulates polycomb recruitment and H2A ubiquitination. Science 318: 447-450.
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CHROMOSOMAL LOCATION

Genetic locus: N4BP2 (human) mapping to 4p14.

PROTOCOLS

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

PRODUCT

N4BP2 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see N4BP2 shRNA Plasmid (h): sc-89160-SH and N4BP2 shRNA (h) Lentiviral Particles: sc-89160-V as alternate gene silencing products.

For independent verification of N4BP2 (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-89160A, sc-89160B and sc-89160C.

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

N4BP2 siRNA (h) is recommended for the inhibition of N4BP2 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 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 N4BP2 gene expression knockdown using RT-PCR Primer: N4BP2 (h)-PR: sc-89160-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.