

NPWBP siRNA (h): sc-95727

BACKGROUND

NPWBP (Npw38-binding protein), also known as WW domain-binding protein 11 and SH3 domain-binding protein SNP70, is a 641 amino acid protein that contains two proline-rich regions that bind to the WW domain of PQBP-1, a transcription repressor that associates with polyglutamine tract-containing transcription regulators. Highly expressed in kidney, pancreas, brain, placenta, heart and skeletal muscle, NPWBP is predominantly located within the nucleus with granular heterogeneous distribution. However, during mitosis NPWBP is distributed in the cytoplasm. In the nucleus, NPWBP co-localizes with two mRNA splicing factors, SC35 and U2 snRNP B, which suggests that it plays a role in pre-mRNA processing.

REFERENCES

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5. Macias, M.J., Wiesner, S. and Sudol, M. 2002. WW and SH3 domains, two different scaffolds to recognize proline-rich ligands. *FEBS Lett.* 513: 30-37.
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CHROMOSOMAL LOCATION

Genetic locus: WBP11 (human) mapping to 12p12.3.

PRODUCT

NPWBP 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 NPWBP shRNA Plasmid (h): sc-95727-SH and NPWBP shRNA (h) Lentiviral Particles: sc-95727-V as alternate gene silencing products.

For independent verification of NPWBP (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-95727A, sc-95727B and sc-95727C.

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

NPWBP siRNA (h) is recommended for the inhibition of NPWBP 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

NPWBP (F-1): sc-393556 is recommended as a control antibody for monitoring of NPWBP 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 NPWBP gene expression knockdown using RT-PCR Primer: NPWBP (h)-PR: sc-95727-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.