SANTA CRUZ BIOTECHNOLOGY, INC.

FNBP3 siRNA (m): sc-62332

BACKGROUND

FNBP3, Formin-binding protein 3, is a 957 amino acid protein encoded by the human gene PRPF40A. FNBP3 belongs to the PRPF40 family and contains five FF domains and two WW domains. Nuclear proteins harboring both WW and FF protein interaction modules bind to splicing factors as well as RNA polymerase II and may serve to link transcription with splicing. Through the WW domains, FNBP3 will bind to the Formin proline-rich regions. Also known as pre-mRNA-processing factor 40 homolog A, FNBP3 binds to WASL/N-WASP (Neuronal Wiskott-Aldrich syndrome protein) complex and suppresses its translocation from the nucleus to the cytoplasm, thereby inhibiting its cytoplasmic function. FNBP3 is widely expressed in most tissues and is localized to the nuclear speckles.

REFERENCES

1. Faber, P.W., et al. 1998. Huntingtin interacts with a family of WW domain proteins. Hum. Mol. Genet. 7: 1463-1474.
2. Scanlan, M.J., et al. 1999. Antigens recognized by autologous antibody in patients with renal-cell carcinoma. Int. J. Cancer 83: 456-464.
3. Allen, M., et al. 2002. The structure of an FF domain from human HYPA/FBP11. J. Mol. Biol. 323: 411-416.
4. Katoh, M., et al. 2003. Identification and characterization of human FNBP3 gene in silico. Int. J. Mol. Med. 12: 651-656.
5. Lin, K.T., et al. 2004. The WW domain-containing proteins interact with the early spliceosome and participate in pre-mRNA splicing *in vivo*. Mol. Cell. Biol. 24: 9176-9185.
6. Jemth, P., et al. 2005. The structure of the major transition state for folding of an FF domain from experiment and simulation. J. Mol. Biol. 350: 363-378.
7. Kato, Y., et al. 2006. Expression and purification of active WW domains of FBP11/HYPA and FBP28/CA150. Protein Pept. Lett. 13: 197-201.

CHROMOSOMAL LOCATION

Genetic locus: Prpf40a (mouse) mapping to 2 C1.1.

PRODUCT

FNBP3 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 FNBP3 shRNA Plasmid (m): sc-62332-SH and FNBP3 shRNA (m) Lentiviral Particles: sc-62332-V as alternate gene silencing products.

For independent verification of FNBP3 (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-62332A, sc-62332B and sc-62332C.

PROTOCOLS

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

FNBP3 siRNA (m) is recommended for the inhibition of FNBP3 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 FNBP3 gene expression knockdown using RT-PCR Primer: FNBP3 (m)-PR: sc-62332-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.