SANTA CRUZ BIOTECHNOLOGY, INC.

FBP21 siRNA (h): sc-75004

BACKGROUND

WW domains mediate protein-protein interactions through binding to short proline-rich motifs within their respective ligands. The WW domain is composed of approximately 40 amino acids that fold as a stable, triple stranded β-sheet without disulfide bridges or cofactors. Proteins containing the WW domain are found in a wide range of signaling proteins, which can be localized within the cytoplasm or the nucleus. FBP21, also known as WW domain-binding protein 4, is a 376 amino acid protein that contains two WW domains and is characterized as a spliceosome-associated protein. FBP21 localizes to nucleus speckles and is thought to play a role in cross-intron bridging of U1 and U2 snRNPs in the mammalian A complex. Specifically, FBP21 interacts via its WW domains with the proline-rich domain of Sam 68 and also binds splicing factors Sm B/B', hnRNP C1/C2 and splicing factor 1.

REFERENCES

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4. Bedford, M.T., Sarbassova, D., Xu, J., Leder, P. and Yaffe, M.B. 2000. A novel pro-Arg motif recognized by WW domains. J. Biol. Chem. 275: 10359-10369.
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6. Sudol, M., Sliwa, K. and Russo, T. 2001. Functions of WW domains in the nucleus. FEBS Lett. 490: 190-195.
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CHROMOSOMAL LOCATION

Genetic locus: WBP4 (human) mapping to 13q14.11.

PRODUCT

FBP21 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 FBP21 shRNA Plasmid (h): sc-75004-SH and FBP21 shRNA (h) Lentiviral Particles: sc-75004-V as alternate gene silencing products.

For independent verification of FBP21 (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-75004A, sc-75004B and sc-75004C.

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

FBP21 siRNA (h) is recommended for the inhibition of FBP21 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 FBP21 gene expression knockdown using RT-PCR Primer: FBP21 (h)-PR: sc-75004-PR (20 µl, 627 bp). 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.