

FBXO18 siRNA (m): sc-145108

BACKGROUND

FBXO18 (F-box only protein 18, F-box DNA helicase 1) is a 1,043 amino acid protein encoded by the human gene FBXO18. FBXO18 belongs to the helicase family (UvrD subfamily) and contains one F-box domain. This nuclear protein is a DNA-dependent ATPase that unwinds double-stranded DNA in a 3' to 5' direction. FBXO18 also recognizes and binds to a variety of phosphorylated proteins and promotes their ubiquitination and degradation. It also interacts with Skp1 in the SCF E3 ubiquitin ligase complex consisting of Skp1, CUL-1, Rbx1 and FBXO18.

REFERENCES

- Heller, R.C. and Marians, K.J. 2007. Non-replicative helicases at the replication fork. *DNA Repair* 6: 945-952.
- Vandenbussche, F., Wiedemann, G., Reski, R., Van Der Straeten, D. and Fierro, A.C. 2007. Evolutionary conservation of plant gibberellin signalling pathway components. *BMC Plant Biol.* 7: 65-65.
- Wang, Y., Li, D.A., Hey, Y., Wang, F., Guo, Y.J., Yang, F., Zhou, Q. and Sun, S.H. 2007. Proteomic analysis of augmented immune responses in mouse by prime-and-boost immunization strategy with DNA vaccine coding HBsAg and rHBsAg protein. *Vaccine* 25: 8146-8153.
- Fujarewicz, K., Jarzab, M., Eszlinger, M., Krohn, K., Paschke, R., Oczko-Wojciechowska, M., Wiench, M., Kukulska, A., Jarzab, B. and Swierniak, A. 2007. A multi-gene approach to differentiate papillary thyroid carcinoma from benign lesions: gene selection using support vector machines with bootstrapping. *Endocr. Relat. Cancer* 14: 809-826.
- Kumar, K.G., Barriere, H., Carbone, C.J., Liu, J., Swaminathan, G., Xu, P., Li, Y., Baker, D.P., Peng, J., Lukacs, G.L. and Fuchs, S.Y. 2007. Site-specific ubiquitination exposes a linear motif to promote interferon- α receptor endocytosis. *J. Cell Biol.* 179: 935-950.
- Will, J., Wolters, D. and Sheldrick, W.S. 2007. Characterisation of cisplatin coordination sites in cellular *Escherichia coli* DNA-binding proteins by combined biphasic liquid chromatography and ESI tandem mass spectrometry. *J. Biol. Inorg. Chem.* 13: 421-434.
- Lestini, R. and Michel, B. 2007. UvrD controls the access of recombination proteins to blocked replication forks. *EMBO J.* 26: 3804-3814.

CHROMOSOMAL LOCATION

Genetic locus: Fbxo18 (mouse) mapping to 2 A1.

PRODUCT

FBXO18 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see FBXO18 shRNA Plasmid (m): sc-145108-SH and FBXO18 shRNA (m) Lentiviral Particles: sc-145108-V as alternate gene silencing products.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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

FBXO18 siRNA (m) is recommended for the inhibition of FBXO18 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 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor FBXO18 gene expression knockdown using RT-PCR Primer: FBXO18 (m)-PR: sc-145108-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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