SANTA CRUZ BIOTECHNOLOGY, INC.

FEM1B siRNA (h): sc-62311

BACKGROUND

FEM1B (FEM1 homolog β), also known as FIAA, F1A-ALPHA (FEM1-like in apoptotic pathway protein α) or FEM1-β, is a 627 amino acid protein that functions as a substrate recognition subunit of the E3 ubiquitin-protein ligase complex. Localizing to both cytoplasm and nucleus, FEM1B is widely expressed at low levels but is found at highest levels in testis. As a death receptor-associated protein, FEM1B regulates apoptosis and has additional roles including glucose homeostasis and stress-induced signaling, thereby activating Chk1. FEM1B contains eight ANK repeats and one TPR repeat, and belongs to the FEM1 family. The gene encoding FEM1B maps to human chromosome 15q23 and mouse chromosome 9 B.

REFERENCES

1. Ventura-Holman, T., et al. 1998. The murine fem1 gene family: homologs of the *Caenorhabditis elegans* sex-determination protein FEM-1. Genomics 54: 221-230.
2. Chan, S.L., et al. 1999. F1Aα, a death receptor-binding protein homologous to the *Caenorhabditis elegans* sex-determining protein, FEM-1, is a caspase substrate that mediates apoptosis. J. Biol. Chem. 274: 32461-32468.
3. Ventura-Holman, T., et al. 2000. Rapid communication: the human FEM1B gene maps to chromosome 15q22 and is excluded as the gene for Bardet-Biedl syndrome, type 4. Am. J. Med. Sci. 319: 268-270.
4. Ventura-Holman, T., et al. 2000. Sequence, organization, and expression of the human FEM1B gene. Biochem. Biophys. Res. Commun. 267: 317-320.
5. Oyhenart, J., et al. 2005. Putative homeodomain transcription factor 1 interacts with the feminization factor homolog fem1b in male germ cells. Biol. Reprod. 72: 780-787.
6. Lu, D., et al. 2005. Abnormal glucose homeostasis and pancreatic islet function in mice with inactivation of the Fem1b gene. Mol. Cell. Biol. 25: 6570-6577.

CHROMOSOMAL LOCATION

Genetic locus: FEM1B (human) mapping to 15q23.

PRODUCT

FEM1B 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 FEM1B shRNA Plasmid (h): sc-62311-SH and FEM1B shRNA (h) Lentiviral Particles: sc-62311-V as alternate gene silencing products.

For independent verification of FEM1B (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-62311A, sc-62311B and sc-62311C.

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

FEM1B siRNA (h) is recommended for the inhibition of FEM1B 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 FEM1B gene expression knockdown using RT-PCR Primer: FEM1B (h)-PR: sc-62311-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.