SANTA CRUZ BIOTECHNOLOGY, INC.

FEM1A siRNA (m): sc-75014

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Apoptosis is an evolutionarily conserved process that is essential for tissue homeostasis and development including sex determination. The FEM proteins are components of a novel signal transduction pathway and are required for male sexual development in the nematode *C. elegans*. FEM1A (FEM-1 homolog a), also known as EPRAP (prostaglandin E receptor 4-associated protein), is a 669 amino acid cytoplasmic protein that belongs to the FEM-1 family. FEM1A is present in atheromata and in macrophages derived from peripheral blood monocytes. FEM1A may be a component of an E3 ubiquitin-protein ligase complex and functions as a substrate recognition subunit. It is suggested that FEM1A participates in anti-inflammatory signaling of macrophages via its interaction with EP4. FEM1A is down-regulated in Rhabdomyosarcoma, the most common soft tissue neoplasm of children. FEM1A is considered a candidate gene for polycystic ovary syndrome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Fem1a (mouse) mapping to 17 D.

PRODUCT

FEM1A 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 FEM1A shRNA Plasmid (m): sc-75014-SH and FEM1A shRNA (m) Lentiviral Particles: sc-75014-V as alternate gene silencing products.

For independent verification of FEM1A (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-75014A, sc-75014B and sc-75014C.

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

FEM1A siRNA (m) is recommended for the inhibition of FEM1A 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 FEM1A gene expression knockdown using RT-PCR Primer: FEM1A (m)-PR: sc-75014-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.

PROTOCOLS

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