SANTA CRUZ BIOTECHNOLOGY, INC.

FXNA siRNA (h): sc-92795

BACKGROUND

Metallopeptidases are enzymes that catalyze the hydrolysis of peptide bonds and are essential to normal physiological processes, including tissue remodeling, reproduction and embryonic development. FXNA (felix-ina), also known as ERMP1 (endoplasmic reticulum metallopeptidase 1) or KIAA1815, is a 904 amino acid metallopeptidase that belongs to the peptidase M28 protein family. FXNA is a multi-pass membrane protein that localizes to the endoplasmic reticulum membrane. FXNA binds two zinc ions and, within the ovary, is essential to the organization of oocytes and somatic cells into discrete follicular structures. The gene that encodes FXNA maps to human chromosome 9p24.1, which consists of about 145 million bases and encodes nearly 900 genes. Considered to play a role in gender determination, deletion of the distal portion of 9p can lead to development of male to female sex reversal, the phenotype of a female with a male X,Y genotype.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ERMP1 (human) mapping to 9p24.1.

PRODUCT

FXNA 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 FXNA shRNA Plasmid (h): sc-92795-SH and FXNA shRNA (h) Lentiviral Particles: sc-92795-V as alternate gene silencing products.

For independent verification of FXNA (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-92795A, sc-92795B and sc-92795C.

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

FXNA siRNA (h) is recommended for the inhibition of FXNA 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 FXNA gene expression knockdown using RT-PCR Primer: FXNA (h)-PR: sc-92795-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.