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SANTA CRUZ BIOTECHNOLOGY, INC.

ZPBP2 siRNA (m): sc-155827

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Mammalian gametes recognize each other when the plasma membrane of the sperm head binds to the zona pellucida (ZP), an extracellular coat surrounding eggs. The zona pellucida is composed of four major glycoproteins expressed in oocytes, ZP1, ZP2, ZP3 and ZP4. Important receptors of zona pellucida on sperm are the zona pellucida binding proteins (ZPBPs). ZPBPs are suggested to play an essential role in sperm-egg interaction. ZPBP2 (zona pellucida binding protein 2), also known as ZPBPL, is a 338 amino acid secreted protein that belongs to the zona pellucida-binding protein Sp38 family. Mutations in the gene encoding ZPBP2 may cause subfertility. ZPBP2 exists as two alternatively spliced isoforms and is encoded by a gene located on human chromosome 17q12.

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CHROMOSOMAL LOCATION

Genetic locus: Zpbp2 (mouse) mapping to 11 D.

PROTOCOLS

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

PRODUCT

ZPBP2 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 ZPBP2 shRNA Plasmid (m): sc-155827-SH and ZPBP2 shRNA (m) Lentiviral Particles: sc-155827-V as alternate gene silencing products.

For independent verification of ZPBP2 (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-155827A, sc-155827B and sc-155827C.

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

ZPBP2 siRNA (m) is recommended for the inhibition of ZPBP2 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 ZPBP2 gene expression knockdown using RT-PCR Primer: ZPBP2 (m)-PR: sc-155827-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.