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WFDC6B siRNA (m): sc-155344

BACKGROUND

Peptidases are enzymes that are responsible for hydrolyzing peptide bonds of polypeptide chains during protein catabolism. Protease inhibitors are important peptidase regulators which halt enzymatic function. The WAP (whey acidic protein) domain, also referred to as the WAP-type four-disulfide core domain, is a signature protein motif that contains eight cysteine residues which form disulfide bonds and may exhibit protease inhibitor activity. WAP domain-containing proteins are thought to function in the immune defense by cleaving microbial proteolytic enzymes in order to prevent tissue penetration and infection. WFDC6 (WAP four-disulfide core domain protein 6), also known as WAP6, is a 131 amino acid secreted protein that contains one WAP domain and one BPTI/Kunitz inhibitor domain. WFDC6 is ubiquitously expressed, however highest levels are found in testis, trachea and epididymis. A cluster of WAP genes, including WFDC6, exist on chromosome 20, suggesting they evolved by repeated duplications. There are two isoforms of WFDC6 that are produced as a result of alternative splicing events.

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CHROMOSOMAL LOCATION

Genetic locus: *Wfdc6b* (mouse) mapping to 2 H3.

RESEARCH USE

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

PRODUCT

WFDC6B siRNA (m) is a pool of 2 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see WFDC6B shRNA Plasmid (m): sc-155344-SH and WFDC6B shRNA (m) Lentiviral Particles: sc-155344-V as alternate gene silencing products.

For independent verification of WFDC6B (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-155344A and sc-155344B.

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

WFDC6B siRNA (m) is recommended for the inhibition of WFDC6B 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 WFDC6B gene expression knockdown using RT-PCR Primer: WFDC6B (m)-PR: sc-155344-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.