

S-100BP siRNA (m): sc-153190

BACKGROUND

The S-100 protein family consists of a group of calcium-binding proteins, which exhibit cell and tissue-specific expression. The expression levels of its members differ in various pathological conditions. The extracellular functions of the S-100 family may include the ability to enhance neurite outgrowth, involvement in inflammation, and motility of tumor cells. S-100BP (S-100P binding protein) is a 408 amino acid protein that colocalizes with S-100P in the nucleus. S-100P is a survival factor that is associated with different types of tumors and can bind and regulate effector proteins. S-100P interacts with and activates the receptor for advanced glycation end products (RAGE), thereby increasing rates of cell growth, division, migration and invasion. S-100BP is expressed in brain, spleen and lung, and is upregulated in various pancreatic ductal adenocarcinomas and pancreatic intraepithelial neoplasias. S-100BP exists as two alternatively spliced isoforms.

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CHROMOSOMAL LOCATION

Genetic locus: S100pbp (mouse) mapping to 4 D2.2.

PRODUCT

S-100BP 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see S-100BP shRNA Plasmid (m): sc-153190-SH and S-100BP shRNA (m) Lentiviral Particles: sc-153190-V as alternate gene silencing products.

For independent verification of S-100BP (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-153190A, sc-153190B and sc-153190C.

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

S-100BP siRNA (m) is recommended for the inhibition of S-100BP 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 S-100BP gene expression knockdown using RT-PCR Primer: S-100BP (m)-PR: sc-153190-PR (20 μ l). 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.