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GMEB-2 siRNA (m): sc-145645

BACKGROUND

GMEB-2 (glucocorticoid modulatory element binding protein 2), also known as PIF79 (parvovirus initiation factor p79) or P79PIF, is a DNA-binding protein that plays a crucial role modulating transcription upon activation by steroid hormones. GMEB-2 is ubiquitously expressed with preferential expression in developmentally important tissues, such as testis, bone marrow, placenta and fetal tissues. It localizes to the nucleus and cytoplasm and contains a SAND domain near its N-terminus and a C-terminal coiled-coil structure. GMEB-2 functions as a homodimer or as a heterodimer with GMEB-1. The formed complex specifically binds to glucocorticoid modulatory elements (GME) in the promoter region of target genes and recruits the histone acetylase CREB binding protein (CBP) during glucocorticoid signaling. This acts to increase sensitivity to low concentrations of glucocorticoids. In addition, GMEB-2 functions as an auxiliary factor required for parvovirus replication.

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CHROMOSOMAL LOCATION

Genetic locus: Gmeb2 (mouse) mapping to 2 H4.

PRODUCT

GMEB-2 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 GMEB-2 shRNA Plasmid (m): sc-145645-SH and GMEB-2 shRNA (m) Lentiviral Particles: sc-145645-V as alternate gene silencing products.

For independent verification of GMEB-2 (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-145645A, sc-145645B and sc-145645C.

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

GMEB-2 siRNA (m) is recommended for the inhibition of GMEB-2 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 GMEB-2 gene expression knockdown using RT-PCR Primer: GMEB-2 (m)-PR: sc-145645-PR (20 μ l, 599 bp). 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.