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SANTA CRUZ BIOTECHNOLOGY, INC.

NBEAL2 siRNA (m): sc-149847

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

NBEAL2 (neurobeachin-like protein 2), also known as GPS or BDPLT4, is a 2,754 amino acid protein that belongs to the WD repeat neurobeachin family. Existing as four alternatively spliced isoforms, NBEAL2 contains one BEACH domain and five WD repeats. NBEAL2 is thought to play a role in α-granule biogenesis in megakaryocytes and is encoded by a gene that maps to human chromosome 3p21.31. Mutations of the NBEAL2 gene are the cause of gray platelet syndrome (GPS), an autosomal recessive platelet disorder in which large platelets that lack α-granules are observed. Patients with GPS may exhibit moderate to severe bleeding. Chromosome 3 houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. Marfan syndrome, osteogenesis imperfecta and Charcot-Marie-Tooth disease are a few of the numerous genetic diseases associated with chromosome 3.

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Nbeal2 (mouse) mapping to 9 F2.

PRODUCT

NBEAL2 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see NBEAL2 shRNA Plasmid (m): sc-149847-SH and NBEAL2 shRNA (m) Lentiviral Particles: sc-149847-V as alternate gene silencing products.

For independent verification of NBEAL2 (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-149847A and sc-149847B.

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

NBEAL2 siRNA (m) is recommended for the inhibition of NBEAL2 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 NBEAL2 gene expression knockdown using RT-PCR Primer: NBEAL2 (m)-PR: sc-149847-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.