

NBEAL1 siRNA (h): sc-94256

BACKGROUND

NBEAL1 (neurobeachin-like 1), also known as ALS2CR16 (amyotrophic lateral sclerosis 2 chromosomal region candidate gene 16 protein) or ALS2CR17, is a 2,694 amino acid protein that belongs to the WD repeat Neurobeachin family. While highly expressed in kidney, brain, prostate and testis, NBEAL1 is also found at low levels in peripheral blood leukocytes, small intestine, ovary and colon. NBEAL1 contains one BEACH domain and two WD repeats, and undergoes alternative splicing to produce two isoforms. The gene encoding NBEAL1 maps to human chromosome 2, which consists of 237 million bases, encodes over 1,400 genes and makes up approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2 including Harlequin ichthyosis, sitosterolemia and Alström syndrome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NBEAL1 (human) mapping to 2q33.2.

PROTOCOLS

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

PRODUCT

NBEAL1 siRNA (h) 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 NBEAL1 shRNA Plasmid (h): sc-94256-SH and NBEAL1 shRNA (h) Lentiviral Particles: sc-94256-V as alternate gene silencing products.

For independent verification of NBEAL1 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-94256A, sc-94256B and sc-94256C.

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

NBEAL1 siRNA (h) is recommended for the inhibition of NBEAL1 expression in human 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 NBEAL1 gene expression knockdown using RT-PCR Primer: NBEAL1 (h)-PR: sc-94256-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.