NCU-G1 shRNA Plasmid (m): sc-149860-SH

BACKGROUND

Lysosomal membrane possess multiple important functions such as lysosomal matrix acidification, control of lysosomal enzymes, mediation of the interaction between lysosomes and other organelles, and transport of degradation products to the cytoplasm. Lysosomal membrane proteins are normally highly glycosylated and consist of approximately 40 members. Lysosomal protein NCU-G1 is a 404 amino acid single-pass type I membrane protein that is widely expressed, with highest expression in kidney. In humans, NCU-G1 is thought to function as a co-activator for ligand-activated PPARα, a nuclear hormone receptor. Murine NCU-G1 is encoded by a gene located on mouse chromosome 3 F1.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: 0610031J06Rik (mouse) mapping to 3 F1.

PRODUCT

NCU-G1 shRNA Plasmid (m) is a pool of 3 target-specific lentiviral vector plasmids each encoding 19-25 nt (plus hairpin) shRNAs designed to knock down gene expression. Each plasmid contains a puromycin resistance gene for the selection of cells stably expressing shRNA. Each vial contains 20 µg of lyophilized shRNA plasmid DNA. Suitable for up to 20 transfections. Also see NCU-G1 siRNA (m): sc-149860 and NCU-G1 shRNA (m) Lentiviral Particles: sc-149860-V as alternate gene silencing products.

RESEARCH USE

The purchase of this product conveys to the buyer the nontransferable right to use the purchased amount of the product and all replicates and derivatives for research purposes conducted by the buyer in his laboratory only (whether the buyer is an academic or for-profit entity). The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party, or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes.

STORAGE AND RESUSPENSION

Store lyophilized shRNA plasmid DNA at 4° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at 4° C for short term storage or -80° C for long term storage. Avoid repeated freeze thaw cycles.

Resuspend lyophilized shRNA plasmid DNA in 200 µl of the deionized water provided. Resuspension of the shRNA plasmid DNA in 200 µl of deionized water makes a 0.1 µg/µl solution in a 10 mM Tris, 1 mM EDTA buffered solution.

APPLICATIONS

NCU-G1 shRNA Plasmid (m) is recommended for the inhibition of NCU-G1 expression in mouse cells.

SUPPORT REAGENTS

For optimal shRNA Plasmid transfection efficiency, Santa Cruz Biotechnology's shRNA Plasmid Transfection Reagent: sc-108061 (0.2 ml) and shRNA Plasmid Transfection Medium: sc-108062 (20 ml) are recommended. Control shRNAs are available as 20 µg lyophilized plasmid DNA. Each encodes a scrambled shRNA sequence that will not lead to the specific degradation of any known cellular mRNA. Control shRNA Plasmids include: sc-108060, sc-108065 and sc-108066.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor NCU-G1 gene expression knockdown using RT-PCR Primer: NCU-G1 (m)-PR: sc-149860-PR (20 µl). 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.