

VPS13A siRNA (m): sc-155217

BACKGROUND

Vacuolar sorting proteins (VPSs) are required for proper trafficking of endocytic and biosynthetic proteins to the vacuole and play an important role in the budding process of cells. VPS13A (vacuolar protein sorting 13 homolog A), also known as CHOC or CHOREIN, is a 3,174 amino acid protein that belongs to the VPS family and contains ten TPR repeats. Expressed in a variety of tissues, including brain, kidney, heart and skeletal muscle, VPS13A is thought to play a role in the regulation of protein cycling from the golgi network to endosomes, lysosomes and the plasma membrane. Defects in the gene encoding VPS13A are the cause of chorea-acanthocytosis (CHAC), an autosomal recessive disorder characterized by epilepsy, peripheral neuropathy, myopathy and oral self-mutilation. Multiple isoforms of VPS13A exist due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Vps13a (mouse) mapping to 19 B.

PRODUCT

VPS13A 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 VPS13A shRNA Plasmid (m): sc-155217-SH and VPS13A shRNA (m) Lentiviral Particles: sc-155217-V as alternate gene silencing products.

For independent verification of VPS13A (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-155217A, sc-155217B and sc-155217C.

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

VPS13A siRNA (m) is recommended for the inhibition of VPS13A 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 VPS13A gene expression knockdown using RT-PCR Primer: VPS13A (m)-PR: sc-155217-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.