SANTA CRUZ BIOTECHNOLOGY, INC.

GOLGA7 siRNA (m): sc-145667

BACKGROUND

GOLGA7 (golgin subfamily A member 7), also known as GCP16 (Golgi complex-associated protein of 16 kDa) or GOLGA3AP1, is a multi-pass membrane protein belonging to the eRF4 family of proteins. It is the functional ortholog of the yeast eRF4 protein. Localizing to the Golgi apparatus, GOLGA7 is a widely expressed protein but its expression is absent from colon and thymus tissues. GOLGA7 is palmitoylated on two cysteine residues, and this palmitoylation is required for its interaction with golgin 160 and its Golgi-localization. GOLGA7 also forms a complex with ZDHHC9 and, together, these proteins function as a Ras palmitoyltransferase (Ras PAT) which is required for palmitoylation of H-Ras and N-Ras proteins. The palmitoylation of Ras proteins is essential for the trafficking of Ras proteins from the Golgi to the plasma membrane, thus implicating GOLGA7 in protein transport from the Golgi to the cell surface.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Golga7 (mouse) mapping to 8 A2.

PRODUCT

GOLGA7 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see GOLGA7 shRNA Plasmid (m): sc-145667-SH and GOLGA7 shRNA (m) Lentiviral Particles: sc-145667-V as alternate gene silencing products.

For independent verification of GOLGA7 (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-145667A, sc-145667B and sc-145667C.

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

GOLGA7 siRNA (m) is recommended for the inhibition of GOLGA7 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.

GENE EXPRESSION MONITORING

GOLGA7 (NO-2): sc-101278 is recommended as a control antibody for monitoring of GOLGA7 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor GOLGA7 gene expression knockdown using RT-PCR Primer: GOLGA7 (m)-PR: sc-145667-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.

PROTOCOLS

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