

GMAP-210 siRNA (h): sc-62387

BACKGROUND

Golgi microtubule-associated protein-210 (GMAP-210), also referred to as CEV14, Trip11 or Trip230, is a peripheral Golgi protein that localizes to the *cis*-Golgi network. GMAP-210 is a 1,978 amino acid coiled-coil member of the golgin family of proteins. Microtubule ends bind to GMAP-210 which functions to link the *cis*-Golgi network to the minus ends of centrosome-nucleated microtubules. This interaction may be essential for the proper morphology and structural maintenance of the Golgi apparatus. GMAP-210 also associates with thyroid hormone receptor β . Overexpression of GMAP-210 disrupts the microtubule network and causes a significant enlargement and fragmentation of the Golgi apparatus; it also blocks anterograde and retrograde transport between the ER and the Golgi apparatus.

REFERENCES

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- Gillingham, A.K., et al. 2004. The GTPase Arf1p and the ER to Golgi cargo receptor Erv14p cooperate to recruit the golgin Rud3p to the *cis*-Golgi. *J. Cell Biol.* 167: 281-292.
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CHROMOSOMAL LOCATION

Genetic locus: TRIP11 (human) mapping to 14q32.12.

PRODUCT

GMAP-210 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 GMAP-210 shRNA Plasmid (h): sc-62387-SH and GMAP-210 shRNA (h) Lentiviral Particles: sc-62387-V as alternate gene silencing products.

For independent verification of GMAP-210 (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-62387A, sc-62387B and sc-62387C.

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

GMAP-210 siRNA (h) is recommended for the inhibition of GMAP-210 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.

GENE EXPRESSION MONITORING

GMAP-210 (E-2): sc-515208 is recommended as a control antibody for monitoring of GMAP-210 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-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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 GMAP-210 gene expression knockdown using RT-PCR Primer: GMAP-210 (h)-PR: sc-62387-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.

PROTOCOLS

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