

# ALG13 siRNA (h): sc-91187

## BACKGROUND

ALG13 (asparagine-linked glycosylation 13 homolog), also known as UDP-N-acetylglucosamine transferase subunit ALG13 homolog or glycosyltransferase 28 domain-containing protein 1, is a 1,137 amino acid protein belonging to the glycosyltransferase 28 family. Encoded by a gene that maps to human chromosome Xq23, ALG13 is a subunit of a bipartite UDP-N-acetylglucosamine transferase and plays a role in protein folding regulation and stabilization. ALG13 contains one OTU domain, one TudorSN domain, and exists as four alternatively spliced isoforms. Heterodimerizing with ALG14, ALG13 forms a UDP-GlcNAc glycosyltransferase, which catalyzes the second sugar addition of the oligosaccharide precursor in endoplasmic reticulum (ER) N-linked glycosylation. ALG13 localizes to ER and may be recruited to the cytosolic face of the membrane by interacting with ALG14.

## REFERENCES

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6. Wang, X., Weldegiorghis, T., Zhang, G., Imperiali, B. and Prestegard, J.H. 2008. Solution structure of ALG13: the sugar donor subunit of a yeast N-acetylglucosamine transferase. *Structure* 16: 965-975.
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## CHROMOSOMAL LOCATION

Genetic locus: ALG13 (human) mapping to Xq23.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## PRODUCT

ALG13 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ALG13 shRNA Plasmid (h): sc-91187-SH and ALG13 shRNA (h) Lentiviral Particles: sc-91187-V as alternate gene silencing products.

For independent verification of ALG13 (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-91187A, sc-91187B and sc-91187C.

## 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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

ALG13 siRNA (h) is recommended for the inhibition of ALG13 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  $\mu$ M in 66  $\mu$ 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 ALG13 gene expression knockdown using RT-PCR Primer: ALG13 (h)-PR: sc-91187-PR (20  $\mu$ 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.