



# MS4A5 siRNA (h): sc-96341

## BACKGROUND

MS4A (membrane-spanning 4-domain family, subfamily A) is a large family of proteins that includes at least 26 members in mouse and humans. Flanked by amino- and carboxyl-cytoplasmic regions, MS4A family members contain four highly conserved transmembrane domains. MS4A5 (membrane-spanning 4-domains, subfamily A, member 5), also known as CD20L2 (CD20 antigen-like 2) or TETM4 (estis-expressed transmembrane protein 4), is a 200 amino acid multi-pass membrane protein that is highly expressed in testis, with lower levels of expression in heart, brain and pancreas. The gene encoding MS4A5 maps to human chromosome 11q12.2, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that map to chromosome 11.

## REFERENCES

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7. Siem, G., et al. 2008. Jervell and Lange-Nielsen syndrome in Norwegian children: aspects around cochlear implantation, hearing, and balance. *Ear Hear.* 29: 261-269.
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## CHROMOSOMAL LOCATION

Genetic locus: MS4A5 (human) mapping to 11q12.2.

## PROTOCOLS

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

## PRODUCT

MS4A5 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 MS4A5 shRNA Plasmid (h): sc-96341-SH and MS4A5 shRNA (h) Lentiviral Particles: sc-96341-V as alternate gene silencing products.

For independent verification of MS4A5 (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-96341A, sc-96341B and sc-96341C.

## 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

MS4A5 siRNA (h) is recommended for the inhibition of MS4A5 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 MS4A5 gene expression knockdown using RT-PCR Primer: MS4A5 (h)-PR: sc-96341-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.