

# SMAP1L siRNA (h): sc-78919

## BACKGROUND

SMAP1L (stromal membrane-associated protein 1-like), also known as SMAP2 (stromal membrane-associated protein 2) is a 429 amino acid cytoplasmic protein that participates in clathrin-dependent retrograde transport from early endosomes to the *trans*-Golgi network. SMAP1L functions as a GTPase activating protein that interacts with ARF1 and ARF6. Polymorphisms within the gene encoding SMAP1L may be associated with aspirin-intolerant asthma (AIA), a clinical syndrome caused by aspirin that is characterized by reversible bronchoconstriction and lung inflammation. It is thought that alterations of clathrin-dependent endocytosis cause a disturbance of surfactant function and since SMAP1L interacts directly with clathrin, it may therefore contribute to the pathogenesis of AIA. There are two isoforms of SMAP1L that are produced as a result of alternative splicing events.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: SMAP2 (human) mapping to 1p34.2.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

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

## PRODUCT

SMAP1L 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 SMAP1L shRNA Plasmid (h): sc-78919-SH and SMAP1L shRNA (h) Lentiviral Particles: sc-78919-V as alternate gene silencing products.

For independent verification of SMAP1L (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-78919A, sc-78919B and sc-78919C.

## 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

SMAP1L siRNA (h) is recommended for the inhibition of SMAP1L 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 SMAP1L gene expression knockdown using RT-PCR Primer: SMAP1L (h)-PR: sc-78919-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.