



# FAM109A siRNA (m): sc-140622

## BACKGROUND

FAM109A, also known as IPIP27A (27 kDa inositol polyphosphate phosphatase interacting protein A), Sesquipedalian-1 or Ses1, is a 249 amino acid protein belonging to the sesquipedalian family and containing one PH domain and one F&H motif. FAM109A is localized to the early and recycling endosomes, the *trans*-Golgi network and macropinosomes, but is not found in late endosomes or lysosomes. FAM109A forms homodimers and heterodimers with FAM109B, and both FAM109B and FAM109B bind to the C-terminal region of the inositol polyphosphate 5-phosphatases OCRL1 and Inpp5b. Defects in the interaction of FAM109A and B with OCRL1 and Inpp5b is thought to play a role in the pathology of Lowe syndrome, characterized by ocular, renal and nervous system defects, and type 2 Dent disease, characterized by renal defects.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Fam109a (mouse) mapping to 5 F.

## PRODUCT

FAM109A siRNA (m) is a target-specific 19-25 nt siRNA 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 FAM109A shRNA Plasmid (m): sc-140622-SH and FAM109A shRNA (m) Lentiviral Particles: sc-140622-V as alternate gene silencing products.

## RESEARCH USE

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

## 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

FAM109A siRNA (m) is recommended for the inhibition of FAM109A 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  $\mu$ 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 FAM109A gene expression knockdown using RT-PCR Primer: FAM109A (m)-PR: sc-140622-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## PROTOCOLS

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