SANTA CRUZ BIOTECHNOLOGY, INC.

# ANGRP siRNA (m): sc-39294

## BACKGROUND

Mouse Ang2 (also designated Angrp, Rnase5b and Ang2 angiogenin, ribonuclease A family, member 2) gene encodes a 145 amino acid protein, that is a homolog to angiogenin (Ang). Angiogenin (Ang) is a small basic protein which belongs to the pancreatic ribonuclease superfamily and induces the formation of new blood vessels. Mice possess genes encoding one ortholog (mAng) and two other homologs of Ang: angiogenin-3 (mAng-3) and angiogenin-4 (mAng-4). The ribonucleolytic active site of angiogenin is critical for angiogenic activity and is well conserved in ANGRP. The ANGRP receptor binding site has a low level of sequence conservation within the Ang receptor recognition sequence 58-69. ANGRP has greater ribonucleolytic activity toward tRNA and dinucleotide substrates relative to Ang.

## REFERENCES


1. Brown, W.E., Nobile, V., Subramanian, V. and Shapiro, R. 1996. The mouse angiogenin gene family: structures of an angiogenin-related protein gene and two pseudogenes. Genomics 29: 200-206.
2. Nobile, V., Vallee, B.L. and Shapiro, R. 1996. Characterization of mouse angiogenin-related protein: implications for functional studies on angiogenin. Proc. Natl. Acad. Sci. USA 93: 4331-4335.
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6. Cho, S., Beintema, J.J. and Zhang, J. 2005. The ribonuclease A superfamily of mammals and birds: identifying new members and tracing evolutionary histories. Genomics 85: 208-220.
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## CHROMOSOMAL LOCATION

Genetic locus: Ang2 (mouse) mapping to 14 C1.

## PROTOCOLS

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

## PRODUCT

ANGRP siRNA (m) 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ANGRP shRNA Plasmid (m): sc-39294-SH and ANGRP shRNA (m) Lentiviral Particles: sc-39294-V as alternate gene silencing products.

For independent verification of ANGRP (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-39294A, sc-39294B and sc-39294C.

## 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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

ANGRP siRNA (m) is recommended for the inhibition of ANGRP 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 µM in 66 µl. 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.

## SELECT PRODUCT CITATIONS


1. Chen, D., Li, K., Tham, E.L., Wei, L.L., Ma, N., Dodd, P.C., Luo, Y., Kirchhofer, D., McVey, J.H. and Dorling, A. 2018. Inhibition of angiopoietin-2 production by myofibrocytes inhibits neointimal hyperplasia after endoluminal injury in mice. Front. Immunol. 9: 1517.


## RESEARCH USE

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