

NALP5 siRNA (*S. scrofa*): sc-270562

BACKGROUND

NACHT-, LRR- and PYD-containing protein (NALP) family function in the regulation of apoptosis and inflammatory signaling pathways. Members of the NALP family (also designated Pyrin-containing APAF1-like proteins) include NALP1 through NALP11. Several family members, such as NALP1, NALP2, NALP3 and NALP6 influence NF κ B and caspase pathways as components of the inflammasome. NALP5 (also designated MATER) is a maternal effect protein required for early embryonic development. Most short NALPs, such as NALP5, have a C-terminal leucine-rich repeat (LRR) region, an N-terminal pyrin (MEFV) domain (PYD), followed by a NACHT domain, and a NACHT-associated domain (NAD). The predicted 1,200-amino acid human NALP5 protein shares 53% sequence identity with the mouse protein. The gene which encodes the human NALP5 protein maps to chromosome 19q13.43.

REFERENCES

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2. Drygin, D., Koo, S., Perera, R., Barone, S. and Bennett, C.F. 2005. Induction of oligonucleotides in lung epithelial carcinoma cells. *Oligonucleotides* 15: 105-118.
3. Panichkul, P.C., Al-Hussaini, T.K., Sierra, R., Kashork, C.D., Popek, E.J., Stockton, D.W. and Van den Veyver, I.B. 2005. Recurrent biparental hydatidiform mole: additional evidence for a 1.1-Mb locus in 19q13.4 and candidate gene analysis. *J. Soc. Gynecol. Investig.* 12: 376-383.
4. Ponsuksili, S., Brunner, R.M., Goldammer, T., Kühn, C., Walz, C., Chomdej, S., Tesfaye, D., Schellander, K., Wimmers, K. and Schwerin, M. 2006. Bovine NALP5, in adult tissues, oocytes, and preimplantation embryos. *Biol. Reprod.* 74: 577-584.

CHROMOSOMAL LOCATION

Genetic locus: NLRP5 (*S. scrofa*) mapping to 6.

PRODUCT

NALP5 siRNA (*S. scrofa*) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see NALP5 shRNA Plasmid (*S. scrofa*): sc-270562-SH and NALP5 shRNA (*S. scrofa*) Lentiviral Particles: sc-270562-V as alternate gene silencing products.

For independent verification of NALP5 (*S. scrofa*) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-270562A, sc-270562B and sc-270562C.

PROTOCOLS

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

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

APPLICATIONS

NALP5 siRNA (*S. scrofa*) is recommended for the inhibition of NALP5 expression in *S. scrofa* 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 μ M in 66 μ 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 NALP5 gene expression knockdown using RT-PCR Primer: NALP5 (*S. scrofa*)-PR: sc-270562-PR (20 μ 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.