

# Syndecan-1 siRNA (bovine): sc-63271

## BACKGROUND

Syndecan-1 (SYND1), also designated CD138, is a type I integral membrane proteoglycan that contains both chondroitin sulfate and heparan sulfate groups. It is expressed in mouse on pre-B cells, immature B cells and plasma cells. Syndecan-1 is also found on the basolateral surfaces of epithelial cells, endothelial cells of sprouting capillaries and embryonic condensing mesenchymal cells. Syndecan-1 functions as an extracellular matrix receptor which binds to collagens, Fibronectin and Thrombospondin. It has been shown to co-localize with Actin-rich filaments and may act to link the cytoskeleton to the extracellular matrix.

## REFERENCES

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- Carey, D.J., Bendt, K.M. and Stahl, R.C. 1996. The cytoplasmic domain of Syndecan-1 is required for cytoskeleton association but not detergent insolubility. Identification of essential cytoplasmic domain residues. *J. Biol. Chem.* 271: 15253-15260.

## CHROMOSOMAL LOCATION

Genetic locus: SDC1 (bovine) mapping to 11.

## PRODUCT

Syndecan-1 siRNA (bovine) 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 Syndecan-1 shRNA Plasmid (bovine): sc-63271-SH and Syndecan-1 shRNA (bovine) Lentiviral Particles: sc-63271-V as alternate gene silencing products.

For independent verification of Syndecan-1 (bovine) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-63271A, sc-63271B and sc-63271C.

## 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

Syndecan-1 siRNA (bovine) is recommended for the inhibition of Syndecan-1 expression in bovine 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 Syndecan-1 gene expression knockdown using RT-PCR Primer: Syndecan-1 (bovine)-PR: sc-63271-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.

## PROTOCOLS

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