SANTA CRUZ BIOTECHNOLOGY, INC.

# Endo180 siRNA (m): sc-62277

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*The Power to Question*

## BACKGROUND

Endo180 (endocytic receptor 180), also known as macrophage mannose receptor C type 2 (MRC2), urokinase plasminogen activator receptor-associated protein (uPARAP) or CD280 antigen, is a ubiquitously expressed, type I membrane protein with predominant expression in fetal lung and kidney. The extracellular domain of Endo180 contains a fibronectin type II domain, eight C-type lectin domains and a cysteine-rich domain. Endo180 functions as a cell surface receptor and mediates collagen matrix remodeling as well as cell migration by playing a role in the uptake and lysosomal degradation of collagen. Endo180 can bind to gelatin and collagens I, II, IV and V. It may play a role in wound regeneration. In addition, Endo180 can form a complex with uPAR and pro-uPA, thereby partaking in a variety of cellular proteolytic and signaling functions. Endo180 participates in the destruction of connective tissue during the progression of head and neck squamous cell carcinoma.

## REFERENCES


1. Wienke, D., et al. 2003. Identification and characterization of the endocytic transmembrane glycoprotein Endo180 as a novel collagen receptor. Mol. Biol. Cell 14: 3592-3604.
2. Fernández, N., et al. 2005. Mannose-containing molecular patterns are strong inducers of cyclooxygenase-2 expression and prostaglandin E2 production in human macrophages. J. Immunol. 174: 8154-8162.
3. Thomas, E.K., et al. 2005. Endo180 binds to the C-terminal region of type I collagen. J. Biol. Chem. 280: 22596-22605.
4. Mousavi, S.A., et al. 2005. Uptake of denatured collagen into hepatic stellate cells: evidence for the involvement of urokinase plasminogen activator receptor-associated protein/Endo180. Biochem. J. 387: 39-46.
5. Boskovic, J., et al. 2006. Structural model for the mannose receptor family uncovered by electron microscopy of Endo180 and the mannose receptor. J. Biol. Chem. 281: 8780-8787.


## CHROMOSOMAL LOCATION

Genetic locus: Mrc2 (mouse) mapping to 11 E1.

## PRODUCT

Endo180 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 Endo180 shRNA Plasmid (m): sc-62277-SH and Endo180 shRNA (m) Lentiviral Particles: sc-62277-V as alternate gene silencing products.

For independent verification of Endo180 (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-62277A, sc-62277B and sc-62277C.

## 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 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

Endo180 siRNA (m) is recommended for the inhibition of Endo180 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.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Endo180 gene expression knockdown using RT-PCR Primer: Endo180 (m)-PR: sc-62277-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## SELECT PRODUCT CITATIONS


1. Majumder, S., et al. 2020. Collagen receptor- and metalloproteinase-dependent hypertensive stress response in mesangial and glomerular endothelial cells. Mol. Cell. Biochem. E-published.


## RESEARCH USE

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