

# CEACAM10 siRNA (m): sc-142245

## BACKGROUND

Carcinoembryonic antigen (CEA) is one of the most commonly used tumor markers in serum immunoassay determinations of carcinoma. Members of the CEACAM (carcinoembryonic antigen-related cell adhesion molecule) family contain a single N domain, with structural homology to the immunoglobulin variable domains, followed by a variable number of immunoglobulin constant-like A and/or B domains. CEACAM10 (carcinoembryonic antigen-related cell adhesion molecule 10), also known as Bgp3 or CEA10, is a 265 amino acid murine protein belonging to the immunoglobulin superfamily and CEA family. Highly expressed in the luminal epithelium of seminal vesicle mucosal folds and on the surface of sperm, CEACAM10 is found at low levels in placenta, colon, small intestine, stomach, bone marrow and salivary gland, with trace levels in epididymis and prostate. CEACAM10 is encoded by a gene located on murine chromosome 7 and may interact with other CEACAM family members on the surface of sperm.

## REFERENCES

1. Keck, U., et al. 1995. The CEA10 gene encodes a secreted member of the murine carcinoembryonic antigen family and is expressed in the placenta, gastrointestinal tract and bone marrow. *Eur. J. Biochem.* 229: 455-464.
2. Stubbs, L., et al. 1996. Detailed comparative map of human chromosome 19q and related regions of the mouse genome. *Genomics* 35: 499-508.
3. Kataoka, K., et al. 2000. A carcinoembryonic antigen family cDNA from mouse placenta encoding a protein with a rare domain composition. *Placenta* 21: 610-614.
4. Finkenzeller, D., et al. 2003. Carcinoembryonic antigen-related cell adhesion molecule 10 expressed specifically early in pregnancy in the decidua is dispensable for normal murine development. *Mol. Cell. Biol.* 23: 272-279.
5. Li, S.H., et al. 2005. Demonstration of a glycoprotein derived from the Ceacam10 gene in mouse seminal vesicle secretions. *Biol. Reprod.* 73: 546-553.
6. Kuespert, K., et al. 2006. CEACAMs: their role in physiology and pathophysiology. *Curr. Opin. Cell Biol.* 18: 565-571.

## CHROMOSOMAL LOCATION

Genetic locus: Ceacam10 (mouse) mapping to 7 A3.

## PRODUCT

CEACAM10 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 CEACAM10 shRNA Plasmid (m): sc-142245-SH and CEACAM10 shRNA (m) Lentiviral Particles: sc-142245-V as alternate gene silencing products.

## PROTOCOLS

See our web site at [www.scbt.com](http://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  $\mu$ 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

CEACAM10 siRNA (m) is recommended for the inhibition of CEACAM10 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 CEACAM10 gene expression knockdown using RT-PCR Primer: CEACAM10 (m)-PR: sc-142245-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.