



## pS2 siRNA (m): sc-39810

### BACKGROUND

Trefoil peptides are protease resistant molecules secreted throughout the gut that play a role in mucosal healing. These peptides contain three intrachain disulfide bonds, forming the trefoil motif, or P-domain. pS2, also designated Md2, BCE1, TFF1 and pNR-2, is a trefoil protein that is highly expressed in normal gastric mucosa. pS2 has also been detected in a number of carcinomas including cancers of the breast, pancreas and stomach. pS2 is not present in normal breast tissue but is inducible by estrogen in MCF7 cells. pS2 is known to form dimers and this dimerization is thought to play a role in its protective and healing properties. The gene encoding pS2 maps to human chromosome 21q22.3.

### REFERENCES

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3. Thim, L. 1997. Trefoil peptides: from structure to function. *Cell. Mol. Life Sci.* 53: 888-903.
4. May, F.E., et al. 1997. Trefoil proteins: their role in normal and malignant cells. *J. Pathol.* 183: 4-7.
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6. Murphy, M.S. 1998. Growth factors and the gastrointestinal tract. *Nutrition* 14: 771-774.
7. Ribieras, S., et al. 1998. The pS2/TFF1 trefoil factor, from basic research to clinical applications. *Biochim. Biophys. Acta* 19: F61-F77.
8. Marchbank, T., et al. 1998. Dimerization of human pS2 (TFF1) plays a key role in its protective/healing effects. *J. Pathol.* 185: 153-158.
9. Giamarchi, C., et al. 2002. Two antiestrogens affect differently chromatin remodeling of trefoil factor 1 (pS2) gene and the fate of estrogen receptor in MCF7 cells. *Biochim. Biophys. Acta* 1578: 12-20.

### CHROMOSOMAL LOCATION

Genetic locus: Tff1 (mouse) mapping to 17 A3.3.

### PRODUCT

pS2 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see pS2 shRNA Plasmid (m): sc-39810-SH and pS2 shRNA (m) Lentiviral Particles: sc-39810-V as alternate gene silencing products.

For independent verification of pS2 (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-39810A, sc-39810B and sc-39810C.

### 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

pS2 siRNA (m) is recommended for the inhibition of pS2 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.

### 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.