

# pS2 (M-20): sc-7843

## BACKGROUND

Trefoil peptides are protease resistant molecules secreted throughout the gut that play a role in mucosal healing. These peptides contain three intra-chain 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 MCF-7 cells. pS2 is known to form dimers, and this dimerization is thought to play a role in its protective and healing properties.

## REFERENCES

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- Gott, P., et al. 1996. Human trefoil peptides: genomic structure in 21q22.3 and coordinated expression. *Eur. J. Hum. Genet.* 4: 308-315.
- Thim, L. 1997. Trefoil peptides: from structure to function. *Cell Mol. Life Sci.* 53: 888-903.
- May, F.E., et al. 1997. Trefoil proteins: their role in normal and malignant cells. *J. Pathol.* 183: 4-7.
- Poulsom, R., et al. 1997. Intestinal trefoil factor (TFF 3) and pS2 (TFF 1), but not spasmolytic polypeptide (TFF 2) mRNAs are co-expressed in normal, hyperplastic, and neoplastic human breast epithelium. *J. Pathol.* 183: 30-38.
- Murphy, M.S. 1998. Growth factors and the gastrointestinal tract. *Nutrition.* 14: 771-774.
- Ribieras, S., et al. 1998. The pS2/TFF1 trefoil factor, from basic research to clinical applications. 19: F61-F77.
- Marchbank, T., et al. 1998. Dimerization of human pS2 (TFF1) plays a key role in its protective/healing effects. *J. Pathol.* 185: 153-158.
- 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.
- Rodrigues, S., et al. 2003. Selective abrogation of the proinvasive activity of the trefoil peptides pS2 and spasmolytic polypeptide by disruption of the EGF receptor signaling pathways in kidney and colonic cancer cells. *Oncogene* 22: 4488-4497.

## SOURCE

pS2 (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of pS2 of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-7843 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

pS2 (M-20) is recommended for detection of precursor and mature pS2 and SP of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for pS2 siRNA (m): sc-39810, pS2 shRNA Plasmid (m): sc-39810-SH and pS2 shRNA (m) Lentiviral Particles: sc-39810-V.

Molecular Weight of pS2: 7-12 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## SELECT PRODUCT CITATIONS

- Masui, F., et al. 2006. Persistent trefoil factor 1 expression imprinted on mouse vaginal epithelium by neonatal estrogenization. *Cell Tissue Res.* 323: 167-175.
- Paulsen, F.P., et al. 2006. TFF peptides and mucins are major components of dacryoliths. *Graefes Arch. Clin. Exp. Ophthalmol.* 244: 1160-1170.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## 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) or our catalog for detailed protocols and support products.