

pS2 (C-20): sc-7842

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 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

1. Pichon, M.F., et al. 1993. Clinical significance of the estrogen regulated pS2 protein in mammary tumors. *Crit. Rev. Oncol. Hematol.* 15: 13-21.
2. Gott, P., et al. 1996. Human trefoil peptides: genomic structure in 21q22.3 and coordinated expression. *Eur. J. Hum. Genet.* 4: 308-315.
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.
5. Murphy, M.S. 1998. Growth factors and the gastrointestinal tract. *Nutrition* 14: 771-774.
6. Ribieras, S., et al. 1998. The pS2/TFF1 trefoil factor, from basic research to clinical applications. *Biochim. Biophys. Acta* 19: F61-F77.

CHROMOSOMAL LOCATION

Genetic locus: TFF1/TFF3 (human) mapping to 21q22.3.

SOURCE

pS2 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of pS2 of human 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-7842 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

pS2 (C-20) is recommended for detection of precursor and mature pS2, SP and ITF of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

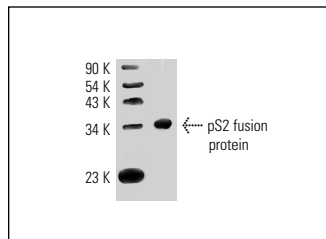
Molecular Weight of pS2: 7-12 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/ 2.0 ml). 3) 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.

DATA



pS2 (C-20): sc-7842. Western blot analysis of human recombinant pS2 fusion protein.

SELECT PRODUCT CITATIONS

1. Mc Ilroy, M., et al. 2006. Tamoxifen-induced ER- α -Src-3 interaction in HER2 positive human breast cancer; a possible mechanism for ER isoform specific recurrence. *Endocr. Relat. Cancer* 13: 1135-1145.
2. Yang, Y.C., et al. 2007. Isolation and characterization of human gastric cell lines with stem cell phenotypes. *J. Gastroenterol. Hepatol.* 22: 1460-1468.
3. Yang, Y.C., et al. 2009. A tumorigenic homeobox (HOX) gene expressing human gastric cell line derived from putative gastric stem cell. *Eur. J. Gastroenterol. Hepatol.* 21: 1016-1023.

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.


 MONOS
Satisfaction
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Try **pS2 (A-10): sc-271464** or **pS2 (A-8): sc-390889**, our highly recommended monoclonal alternatives to pS2 (C-20).