

pS2 (E-16): sc-22501

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, BCEI, 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. The gene encoding pS2 maps to human chromosome 21q22.3.

REFERENCES

- Pichon, M.F., et al. 1993. Clinical significance of the estrogen regulated pS2 protein in mammary tumors. *Crit. Rev. Oncol. Hematol.* 15: 13-21.
- 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 spasmodic polypeptide (TFF 2) mRNAs are co-expressed in normal, hyperplastic, and neoplastic human breast epithelium. *J. Pathol.* 183: 30-38.
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- Ribieras, S., et al. 1998. The pS2/TFF1 trefoil factor, from basic research to clinical applications. *Biochim. Biophys. Acta.* 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.

CHROMOSOMAL LOCATION

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

SOURCE

pS2 (E-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of mature chain 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-22501 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

pS2 (E-16) is recommended for detection of precursor and mature chain of pS2 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).

Suitable for use as control antibody for pS2 siRNA (h): sc-39809, pS2 shRNA Plasmid (h): sc-39809-SH and pS2 shRNA (h) Lentiviral Particles: sc-39809-V.

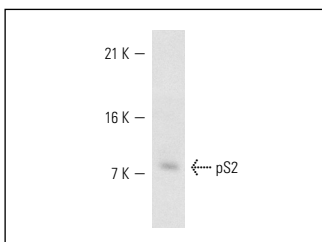
Molecular Weight of pS2: 7-12 kDa.

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

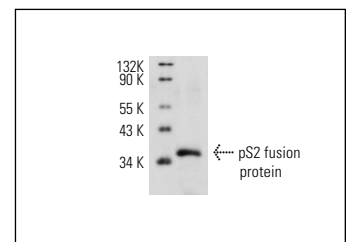
RECOMMENDED SECONDARY REAGENTS

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 (E-16): sc-22501. Western blot analysis of pS2 expression in MCF7 whole cell lysate.



pS2 (E-16): sc-22501. Western blot analysis of human recombinant pS2 fusion protein.

SELECT PRODUCT CITATIONS

- Han, X., et al. 2008. High-throughput cell-based screening reveals a role for ZNF131 as a repressor of ERα signaling. *BMC Genomics* 9: 476.

RESEARCH USE

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


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Try **pS2 (A-10): sc-271464** or **pS2 (A-8): sc-390889**, our highly recommended monoclonal alternatives to pS2 (E-16).