

# pS2 (A-10): sc-271464

## 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 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

- 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

pS2 (A-10) is a mouse monoclonal antibody raised against amino acids 1-84 representing full length pS2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

pS2 (A-10) is available conjugated to agarose (sc-271464 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271464 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271464 PE), fluorescein (sc-271464 FITC), Alexa Fluor® 488 (sc-271464 AF488), Alexa Fluor® 546 (sc-271464 AF546), Alexa Fluor® 594 (sc-271464 AF594) or Alexa Fluor® 647 (sc-271464 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271464 AF680) or Alexa Fluor® 790 (sc-271464 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

pS2 (A-10) is recommended for detection of precursor and mature pS2 of human origin by Western Blotting (starting dilution 1:100, 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.

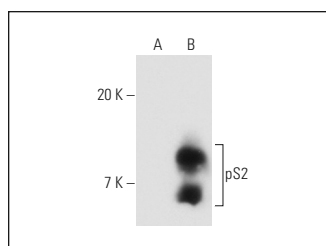
Molecular Weight of pS2: 7-12 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, human stomach extract: sc-363780 or pS2 (h): 293T Lysate: sc-115008.

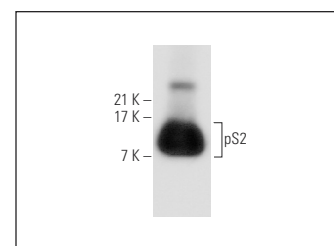
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BPFITC: sc-516140 or m-IgGκ BPE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



pS2 (A-10): sc-271464. Western blot analysis of pS2 expression in non-transfected: sc-117752 (A) and human pS2 transfected: sc-115008 (B) 293T whole cell lysates.



pS2 (A-10): sc-271464. Western blot analysis of pS2 expression in human stomach tissue extract.

## SELECT PRODUCT CITATIONS

- Wang, Y., et al. 2018. Expression of Clara cell 10-kDa protein and trefoil factor family 1 in patients with chronic rhinosinusitis and nasal polyps. *Exp. Ther. Med.* 15: 2541-2546.
- Han, Y., et al. 2020. Establishment and characterization of highly osteolytic luminal breast cancer cell lines by intracaudal arterial injection. *Genes Cells* 25: 111-123.
- DiGiacomo, J.W., et al. 2021. Extracellular matrix-bound FGF2 mediates estrogen receptor signaling and therapeutic response in breast cancer. *Mol. Cancer Res.* 19: 136-149.
- Saha, A., et al. 2022. Downregulation of the tumor suppressor TFF1 is required during induction of colon cancer progression by L1. *Cancers* 14: 4478.

## 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) for detailed protocols and support products.

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