

# Pancreasin (A-17): sc-82272

## BACKGROUND

Serine proteases are important in many biological processes such as receptor activation, complement activation, coagulation and tissue remodeling. Pancreasin, also known as marapsin (MPN), channel activating protease 2-like protein (CAPH2) or protease, serine 27, is an N-glycosylated, secreted pancreatic tryptic serine peptidase and proteinase. Pancreasin is responsible for cleaving peptides after an Arginine residue and may play a role in regulating cell growth and migration. It can be inhibited by benzamidine and Leupeptin. Pancreasin is closely related to prostasin, Trypsin  $\gamma$ , Testisin and Trypsin  $\epsilon$ . These proteins share approximately 40% amino acid identity with trypsin  $\alpha$  and trypsin  $\beta$ . They contain Cysteine residues that may form a disulfide link between the propeptide and catalytic chain, a tryptic propeptide cleavage site and a C-terminal membrane anchor. Trypsin  $\epsilon$  and the human Pancreasin protein lack the characteristic C-terminal membrane anchor.

## REFERENCES

1. Bhagwandin, V.J., et al. 2003. Structure and activity of human Pancreasin, a novel tryptic serine peptidase expressed primarily by the pancreas. *J. Biol. Chem.* 278: 3363-3371.
2. Tong, Z., et al. 2004. Prostatin, a membrane-anchored serine peptidase, regulates sodium currents in JME/CF15 cells, a cystic fibrosis airway epithelial cell line. *Am. J. Physiol. Lung Cell Mol. Physiol.* 287: L928-L935.
3. Verghese, G.M., et al. 2004. Mouse Prostatin gene structure, promoter analysis, and restricted expression in lung and kidney. *Am. J. Respir. Cell Mol. Biol.* 30: 519-529.
4. Yasuda, S., et al. 2005. Urokinase-type plasminogen activator is a preferred substrate of the human epithelium serine protease Trypsin  $\epsilon$ /PRSS22. *Blood* 105: 3893-3901.
5. Wong, G.W. and Stevens, R.L. 2005. Identification of a subgroup of glycosylphosphatidylinositol-anchored trypsinases. *Biochem. Biophys. Res. Commun.* 336: 579-584.
6. Cal, S., et al. 2006. Identification and characterization of human Polyserine-3, a novel protein with tandem serine-protease domains in the same polypeptide chain. *BMC Biochem.* 7: 9.

## CHROMOSOMAL LOCATION

Genetic locus: Prss27 (mouse) mapping to 17 A3.3.

## SOURCE

Pancreasin (A-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Pancreasin of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-82272 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Pancreasin (A-17) is recommended for detection of Pancreasin of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 Pancreasin siRNA (m): sc-72313, Pancreasin shRNA Plasmid (m): sc-72313-SH and Pancreasin shRNA (m) Lentiviral Particles: sc-72313-V.

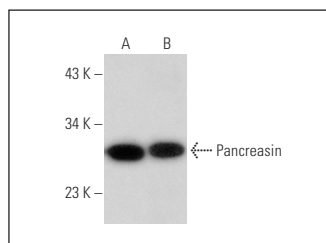
Molecular Weight of Pancreasin: 32 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211 or mouse liver extract: sc-2256.

## 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



Pancreasin (A-17): sc-82272. Western blot analysis of Pancreasin expression in RAW 264.7 whole cell lysate (A) and mouse liver tissue extract (B).

## 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.