

# Pancreasin (D-5): sc-166764

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: PRSS27 (human) mapping to 16p13.3.

## SOURCE

Pancreasin (D-5) is a mouse monoclonal antibody raised against amino acids 93-133 mapping within an internal region of Pancreasin of human origin.

## PRODUCT

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

Pancreasin (D-5) is available conjugated to agarose (sc-166764 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166764 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166764 PE), fluorescein (sc-166764 FITC), Alexa Fluor<sup>®</sup> 488 (sc-166764 AF488), Alexa Fluor<sup>®</sup> 546 (sc-166764 AF546), Alexa Fluor<sup>®</sup> 594 (sc-166764 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-166764 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-166764 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-166764 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

Pancreasin (D-5) is recommended for detection of Pancreasin of human origin by Western Blotting (starting dilution 1:100, 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).

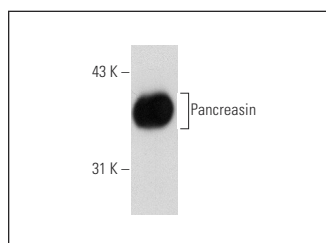
Suitable for use as control antibody for Pancreasin siRNA (h): sc-72312, Pancreasin shRNA Plasmid (h): sc-72312-SH and Pancreasin shRNA (h) Lentiviral Particles: sc-72312-V.

Molecular Weight of Pancreasin: 32 kDa.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



Pancreasin (D-5): sc-166764. Western blot analysis of full length human recombinant Pancreasin.

## 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.