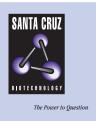
SANTA CRUZ BIOTECHNOLOGY, INC.

Pancreasin (M-40): sc-98527



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 prostatin, Tryptase γ , Testisin and Tryptase ϵ . These proteins share approximately 40% amino acid identity with tryptase α and tryptase β . They contain Cysteine residues that may form a disulfide link bewteen the propeptide and catalytic chain, a tryptic propeptide cleavage site and a C-terminal membrane anchor. Tryptase ϵ and the human Pancreasin protein lack the characteristic C-terminal membrane anchor.

REFERENCES

- Bhagwandin, V.J., Hau, L.W., Mallen-St. Clair, J., Wolters, P.J. and Caughey, G.H. 2003. Structure and activity of human Pancreasin, a novel tryptic serine peptidase expressed primarily by the pancreas. J. Biol. Chem. 278: 3363-3371.
- Tong, Z., Illek, B., Bhagwandin, V.J., Verghese, G.M. and Caughey, G.H. 2004. Prostasin, 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.
- Verghese, G.M., Tong, Z.Y., Bhagwandin, V. and Caughey, G.H. 2004. Mouse Prostasin gene structure, promoter analysis, and restricted expression in lung and kidney. Am. J. Respir. Cell Mol. Biol. 30: 519-529.
- 4. Yasuda, S., Morokawa, N., Wong, G.W., Rossi, A., Madhusudhan, M.S., Sali, A., Askew, Y.S., Adachi, R., Silverman, G.A., Krilis, S.A. and Stevens, R.L. 2005. Urokinase-type plasminogen activator is a preferred substrate of the human epithelium serine protease Tryptase ε/PRSS22. Blood 105: 3893-3901.
- Wong, G.W. and Stevens, R.L. 2005. Identification of a subgroup of glycosylphosphatidylinositol-anchored tryptases. Biochem. Biophys. Res. Commun. 336: 579-584.
- Cal, S., Peinado, J.R., Llamazares, M., Quesada, V., Moncada-Pazos, A., Garabaya, C. and López-Otín, C. 2006. Identification and characterization of human Polyserase-3, a novel protein with tandem serine-protease domains in the same polypeptide chain. BMC Biochem. 7: 9-9.
- Adachi, W., Ulanovsky, H., Li, Y., Norman, B., Davis, J. and Piatigorsky, J. 2006. Serial analysis of gene expression (SAGE) in the rat limbal and central corneal epithelium. Invest. Ophthalmol. Vis. Sci. 47: 3801-3810.
- Stevens, R.L. and Adachi, R. 2007. Protease-proteoglycan complexes of mouse and human mast cells and importance of their tryptase β-heparin complexes in inflammation and innate immunity. Immunol. Rev. 217: 155-167.

CHROMOSOMAL LOCATION

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

SOURCE

Pancreasin (M-40) is a rabbit polyclonal antibody raised against amino acids 97-135 mapping within an internal region of Pancreasin of mouse origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Pancreasin (M-40) 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 μ g per 100-500 μ 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.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

RESEARCH USE

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