Pepsin C (T-12): sc-51190

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BIOTECHNOLOGY

The Power to Question

BACKGROUND

Pepsin is one of the main proteolytic enzymes secreted by the gastric mucosa. Pepsin consists of a single polypeptide chain and arises from its precursor, pepsinogen, by removal of a 41 amino acid segment from the N-terminus. Pepsinogen is synthesized in the stomach lining; hydrochloric acid, also produced by the gastric mucosa, is necessary to convert the inactive enzyme and to maintain the optimum acidity (pH 1-3) for pepsin function. Pepsin is particularly effective in cleaving peptide bonds involving aromatic amino acids. It shows extremely broad specificity, and although bonds involving phenylalanine and leucine are preferred, many others are also cleaved to some extent. The amino acid composition of Pepsin C differs from those of pepsinogen and pepsin, especially in the content of basic amino acids, glutamic acid, aspartic acid, leucine and isoleucine.

REFERENCES

1. Ryle, A.P. and Hamilton, M.P. 1967. Pepsinogen C and pepsin C. Further purification and amino acid composition. Biochem. J. 101: 176-183.

2. Ryle, A.P., Leclerc, J. and Falla, F. 1968. The substrate specificity of pepsin C. Biochem. J. 110: 4P.

CHROMOSOMAL LOCATION

Genetic locus: PGC (human) mapping to 6p21.1.

SOURCE

Pepsin C (T-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Pepsin C 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-51190 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Pepsin C (T-12) is recommended for detection of Pepsin C (Gastricsin) and Pepsinogen C (Progastricsin) 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), immunohistochemistry (including paraffin-embedded sections) (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 Pepsin C siRNA (h): sc-61318, Pepsin C shRNA Plasmid (h): sc-61318-SH and Pepsin C shRNA (h) Lentiviral Particles: sc-61318-V.

Molecular Weight of Pepsin C: 40 kDa.

Positive Controls: Human small intestine extract: sc-364225.

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA
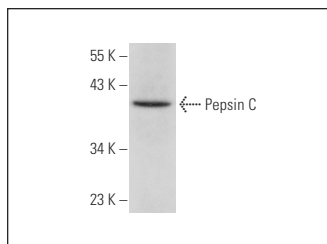
Pepsin C (T-12): sc-51190. Western blot analysis of Pepsin C expression in human small intestine tissue extract.
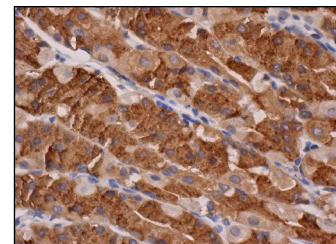
Pepsin C (T-12): sc-51190. Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic staining of glandular cells.

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 or our catalog for detailed protocols and support products.

MONOS
Satisfation
Guaranteed

Try **Pepsin C (E-9): sc-374044**, our highly recommended monoclonal alternative to Pepsin C (T-12).