**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, and 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. Pepsin 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**


**CHROMOSOMAL LOCATION**

Genetic locus: PGC (human) mapping to 6p21.1; Pgc (mouse) mapping to 17 C.

**SOURCE**

Pepsin C (E-9) is a mouse monoclonal antibody raised against amino acids 122-177 mapping within an internal region of Pepsin C of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Pepsin C (E-9) is available conjugated to agarose (sc-374044 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374044 HRP), 200 µg/ml, for WB, IHC and FCM; to either phycoerythrin (sc-374044 PE), fluorescein (sc-374044 FITC), Alexa Fluor® 488 (sc-374044 AF488), Alexa Fluor® 546 (sc-374044 AF546), Alexa Fluor® 594 (sc-374044 AF594) or Alexa Fluor® 647 (sc-374044 AF647), 200 µg/ml, for WB (RGB), IF; to either Alexa Fluor® 680 (sc-374044 AF680) or Alexa Fluor® 790 (sc-374044 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**RESEARCH USE**

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

**APPLICATIONS**

Pepsin C (E-9) is recommended for detection of Pepsin C of mouse, rat and 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).


Molecular Weight of Pepsin C: 40 kDa.

Positive Controls: rat stomach extract: sc-394508, human Pepsin C transfected HEK293T whole cell lysate or human stomach extract: sc-363780.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgGκ HRP: sc-516102 or m-IgGκ HRP (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).

**DATA**

**SELECT PRODUCT CITATIONS**


**STORAGE**

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

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