**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; although bonds involving phenylalanine and leucine are preferred, many others are also cleaved to some extent. Pepsin A is a member of the subfamily A1 within the Pepsin family and is the predominant endopeptidase in the gastric juice of vertebrates. Pepsin A is inhibited by ovUS-1, a uterine serpin.

**REFERENCES**


**CHROMOSOMAL LOCATION**


**SOURCE**

Pepsin A (A-10) is a mouse monoclonal antibody raised against amino acids 281-324 mapping near the C-terminus of Pepsin A 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 A (A-10) is available conjugated to agarose (sc-271798 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271798 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271798 PE), fluorescein (sc-271798 FITC), Alexa Fluor® 488 (sc-271798 AF488), Alexa Fluor® 546 (sc-271798 AF546), Alexa Fluor® 594 (sc-271798 AF594) or Alexa Fluor® 647 (sc-271798 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271798 AF680) or Alexa Fluor® 790 (sc-271798 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

Pepsin A (A-10) is recommended for detection of Pepsin A and Pepsinogen A of 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).

Suitable for use as control antibody for Pepsin A siRNA (h): sc-61317, Pepsin A shRNA Plasmid (h): sc-61317-SH and Pepsin A shRNA (h) Lentiviral Particles: sc-61317-V.

Molecular Weight of Pepsin A: 42 kDa.

Positive Controls: Pepsin A4 (h): 293 Lysate; sc-171136.

**RECOMMENDED SUPPORT REAGENTS**

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


**DATA**

Pepsin A (A-10): sc-271798. Western blot analysis of Pepsin A4 expression in non-transfected: sc-110760 (A) and human Pepsin A4 transfected: sc-171136 (B) whole cell lysates.

**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.

**RESEARCH USE**

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

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