

Recombinant Human Pepsin A-4/PGA4 Protein

Catalog No.: RP01749 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	643847	PODJD7

Tags

C-6His

Synonyms

Pepsin A-4/PGA4

Product Information

Source	Purification
HEK293 cells	> 97% by SDS-PAGE.

Calculated MW	Observed MW
42.82 kDa	45-50 kDa

Endotoxin

<0.001EU/μg

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

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Background

PGA4 (Pepsinogen 4, group I), or Pepsinogen A, is a member of the peptidase A1 family. Pepsin is expressed as a pro-form zymogen, pepsinogen, whose primary structure has an additional 44 amino acids. Pepsin is stored as pepsinogen so it will only be released when needed, and does not digest the body's own proteins in the stomach's lining. Five types of zymogens of pepsins, gastric digestive proteinases, are known: pepsinogens A, B, and F, progastricsin, and prochymosin. There are two major groups of pepsinogen, namely pepsinogen A (PGA) and pepsinogen C (PGC) (or progastricsin), and each frequently has isozymogens. The PGA3, PGA4 and PGA5 genes encode identical human pepsinogen A enzymes.

Basic Information

Description

Recombinant Human Pepsin A-4/PGA4 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Met1-Ala388) of human Pepsin A-4/PGA4 (Accession #NP_001073276.1) fused with a 6×His tag at the C-terminus.

Bio-Activity

Measured by its ability to cleave the fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH₂ (RD,Catalog # ES002). The specific activity is >27408 pmol/min/μg, as measured under the described conditions.

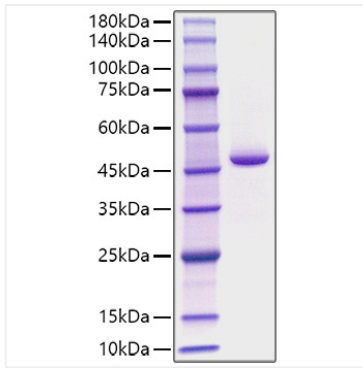
Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

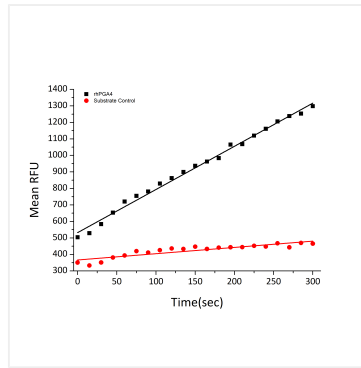
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human Pepsin A-4/PGA4
Protein was determined by SDS-PAGE with
Coomassie Blue, showing a band at 45 kDa.



Recombinant Human Pepsin A-4/PGA4 cleave
the fluorogenic peptide substrate, Mca-
RPKPVE-Nval-WRK(Dnp)-NH₂ (RD, Catalog #
ES002). The specific activity is >27408
pmol/min/μg, as measured under the
described conditions.