Recombinant Human Pepsin A-4/PGA4 Protein

Catalog No.: RP01749

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Sequence Information

Species
Human

Gene ID
643847

Swiss Prot
P0DJD7

Tags
C-6His

Synonyms
Pepsin A-4; PGA4

Product Information

Source
HEK293 cells

Purification
≥ 95 % as determined by SDS-PAGE.

Calculated MW
42.82 kDa

Observed MW
45-50 kDa

Endotoxin
< 0.1 EU/μg of the protein by LAL method.

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 stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

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.

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.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

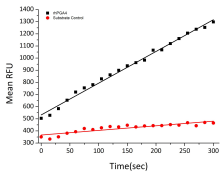
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

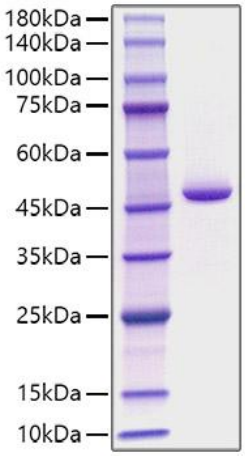
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Validation Data



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.



Recombinant Human Pepsin A-4/PGA4 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.