



Recombinant Protein Technical Manual

Recombinant Rat Pepsinogen C/PGC Protein (His Tag)

RPES0985

Product Data:

Product SKU: RPES0985

Size: 10µg

Species: Rat

Expression host: HEK293 Cells

Uniprot: NP_579818.1

Protein Information:

Molecular Mass: 42.5 kDa

AP Molecular Mass: 43 kDa

Tag: C-His

Bio-activity:

Purity: > 95 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile 50mM Tris, 150mM NaCl, pH 7.5

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: PG1;Pg;Upg1

Immunogen Information:

Sequence: Met 1-Val 392

Background:

Pepsinogen C, also known as PGC, is an aspartic proteinase that belongs to the peptidase family A1. Pepsinogen C is synthesized in the gastric mucosa as inactive precursors, known as zymogens. Pepsinogen C contains a prosegment that serves to stabilize the inactive form and prevent entry of the substrate to the active site. At low PH conditions, Pepsinogen C undergoes conversion into active enzyme. Pepsinogen C has been found expressed in all regions of the stomach mucosa and also in the proximal duodenal mucosa. In stomach cancer tissues and cancer cell lines, the expressions of the pepsinogen genes were decreased or lost, in good accordance with their pepsinogen productions. No gross structural changes of the pepsinogen genes were observed in these cancers, but the methylation patterns of the pepsinogen genes were found to be altered in different ways in different cancers. Serum levels of Pepsinogen C are used as a biomarker for certain gastric diseases including Helicobacter pylori related gastritis.