



Recombinant Protein Technical Manual

Recombinant Human Pepsinogen C/PGC Protein (E. coli, His Tag)

RPES3902

Product Data:

Product SKU: RPES3902

Size: 20µg

Species: Human

Expression host: E. coli

Uniprot: P20142

Protein Information:

Molecular Mass: 10.9 kDa

AP Molecular Mass: 10 kDa

Tag: N-His

Bio-activity:

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: Please contact us for more information.

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, 0.4M sucrose, 1mM EDTA, 50mM NaCl, pH 8.0

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

Application:

Synonyms: PEPC;PGII

Immunogen Information:

Sequence: Ile153-Ile239

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.