Data Sheet (Cat.No.TMPY-07092)

TargetMol

Pepsinogen C/PGC Protein, Human, Recombinant (aa 153-239, His)

General Information

Synonyms: PGII;PEPC

Protein Construction: A DNA sequence encoding the mature form of human PGC (P20142-1) (Ile153-Ile239) was expressed with a polyhistide tag at the N-terminus.

Species: Human

Expression Host: E. coli

Accession: P20142-1

Molecular Weight: 10.9 kDa (predicted); 10 kDa (reducing contition)

QC Testing

Biological Activity: Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.

Purity: > 95% as determined by SDS-PAGE

Endotoxin: Please contact us for more information.

Formulation: Lyophilized from sterile 50mM Tris, 0.4M sucrose, 1mM EDTA, 50mM NaCl, pH 8.0 Pleasecontact us for any concerns or special requirements. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hardcopy of datasheet or the lot-specific COA.

Preparation and Storage

Reconstitution:

Please refer to the lot-specific COA.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein 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.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481