

Product Data Sheet

Pepsinogen C/PGC Protein, Rat (HEK293, His)

Cat. No.:	HY-P76538
Synonyms:	Gastricsin; Pepsinogen C; PGC; PEPC
Species:	Rat
Source:	HEK293
Accession:	P04073 (S17-V392)
Gene ID:	24864
Molecular Weight:	Approximately 43 kDa

PROPERTIES	
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 50 mM Tris, 150 mM NaCl, pH 7.5. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION	
Background	Pepsinogen C (PGC) is an enzyme that functions as a precursor to the digestive enzyme pepsin. PGC possesses the ability to hydrolyze a diverse range of proteins. This enzyme is primarily synthesized and secreted by the gastric chief cells in the stomach lining. Once released into the acidic environment of the stomach, PGC undergoes cleavage to form pepsin, an active protease responsible for breaking down dietary proteins into smaller peptides. The conversion of PGC to pepsin is facilitated by the low pH of the stomach, triggering the activation of this zymogen. The role of PGC in the digestive process is crucial for the initial breakdown of ingested proteins, enabling their subsequent digestion and absorption in the gastrointestinal tract. Understanding the activation and function of PGC contributes to insights into the intricate mechanisms of protein digestion and gastric physiology.

Caution: Product has not been fully validated for medical applications. For research use only.

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