

PGA5

Native Human Pepsinogen I

Catalog No.	CNH002A CNH002C	Quantity:	100 µg 1 mg
Alternate Names:	Pepsinogen A, PG1, PGA		
Description:	Human Pepsinogens are aspartic proteases produced in the gastric mucosa and secreted into the gastric lumen that play a major role in the digestion of proteins after activation at acidic pH. Pepsinogen is synthesized as isomogens and are classified into two groups, I and II. Human PGA and PGC antigen have been investigated as a possible biomarker for early detection of, Gastric cancer (GC), adenoma (GA) and severe atrophic (diffuse or patchy) corpus gastritis. It has been reported that human Pepsinogen I (PGA) levels were lower in atrophic corpus gastritis than in atrophic antral gastritis, and human pepsinogen I(PGA) levels were lower in advanced gastric cancer than early stage gastric cancer.		
Source:	Human Gastric Mucosa		
E.C. Number:	3.4.23.1		
Appearance:	White to off-white powder		
Solubility:	Produces a clear, colorless solution at 1 mg/ml in 0.02 M Tris-HCl, pH 8.0		
Molecular Weight:	40,300		
Formulation:	Lyophilized from Tris HCl, pH 8.5		
Purity:	≥ 90% by SDS-PAGE, may contain minor cleavage products. Identity confirmed by Western blot.		
Protein:	Report mg protein/vial ($E^{0.1\%}_{280\text{ nm}} = 1.48$), lot specific		
Specific Activity:	≥ 500 U/mg protein (after activation), lot specific		
Unit Definition:	One unit will produce a ΔA_{280} of 0.001 per minute at pH 2.0 and 37°C, measured as TCA-soluble products from hemoglobin		
Reconstitution:	After reconstitution maintain at or above pH 8.0 to avoid activation.		
Storage & Stability:	Store at -20°C for up to 1 year. Avoid repeated freeze-thaw cycles of the reconstituted protein.		
Handling:	Handle as a potentially hazardous substance.		
Non-Infectious Disease Certification:	Non-reactive for HIV-1/HCV/HBV by NAT; HBsAg, HCV Ab, HIV-1&2 Ab and RPR by currently approved FDA methods. However, because no test method can offer complete assurance that infectious agents are absent, this material should be handled at Bio-Safety Level 2 (BSL 2) as recommended for potentially infectious human serum or blood specimen in the CCD/NIH manual "Biosafety in Microbiological and Biomedical Laboratories", 1999.		

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