## Recombinant Human PGA4/Pepsinogen A Protein (His Tag)

## Catalog Number: PKSH030741

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

Description			
Species	Human		
Source	HEK293 Cells-derived Human PGA4/Pepsinogen A protein Met 1-Ala 388, with an C-		
	terminal His		
Calculated MW	41.7 kDa		
Observed MW	45 kDa		
Accession	NP-001073276.1		
Bio-activity	Measured by its ability to cleave the fluorogenic peptide substrate, Mca-RPKPVE-		
	Nval-WRK(Dnp)-NH2, AnaSpec, Catalog # 27114. The specific activity is > 10, 000		
	pmoles/min/µg. (Activation description: The enzyme achieves its activity under acidic		
	pH)		
Properties			
Purity	> 97 % as determined by reducing SDS-PAGE.		
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.		
Storage	Generally, 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 $< -20^{\circ}$ C for 3 months.		
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.		
Formulation	Lyophilized from sterile PBS, pH 7.4		
	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 printed manual.		
Reconstitution	Please refer to the printed manual for detailed information.		

Data

KDa 116	MK	R
66.2	-	48
45.0	-	-
35.0	-	
25.0	-	
18.4 14.4	=	- Ale

> 97 % as determined by reducing SDS-PAGE.

## Background

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PGA4 (Pepsinogen 4; group I); or Pepsinogen A; is a member of the peptidase A1 family. Pepsin is expressed as a proform zymogen; pepsinogen; whose primary structure has an additional 44 amino acids. Pepsin is stored as pepsinogen so it will only be released when needed; and does not digest the body's own proteins in the stomach's lining. Five types of zymogens of pepsins; gastric digestive proteinases; are known: pepsinogens A; B; and F; progastricsin; and prochymosin. There are two major groups of pepsinogen; namely pepsinogen A (PGA) and pepsinogen C (PGC) (or progastricsin); and each frequently has isozymogens. The PGA3; PGA4 and PGA5 genes encode identical human pepsinogen A enzymes.