Recombinant Human FAP/Seprase Protein (His Tag)

Catalog Number: PKSH031593

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

Description				
Species	Human			
Source	HEK293 Cells-derived Human FAP/Seprase protein Leu 26-Asp 760, with an N-			
	terminal His			
Calculated MW	87.2 kDa			
Observed MW	90 kDa			
Accession	Q12884-1			
Bio-activity	Measured by its ability to convert the substrate benzyloxycarbonyl-Gly-Pro-7-amido-4-			
	methylcoumarin (Z-GP-AMC) to Z-Gly-Pro and 7-amino-4-methylcoumarin (AMC).			
	The specific activity is $> 1200 \text{ pmol/min/}\mu\text{g}$			
Properties				
Purity	> 95 % 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 25mM Tris, 250mM NaCl, pH 8.2			
	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.			



KDa	MK	R	
116 66.2	-	-	
45.0	-		
35.0	-		
25.0	-		
18.4	-		
14.4	100		
Elabs			

> 95 % as determined by reducing SDS-PAGE.

Background

For Research Use Only

Elabscience®

Seprase, also known as 170 kDa melanoma membrane-bound gelatinase , Fibroblast activation protein alpha, Integral membrane serine protease and FAP, is a single-pass type II membrane protein which belongs to thepeptidase S9B family. Seprase / FAP is found in cell surface lamellipodia, invadopodia and on shed vesicles. Seprase / FAP appears to act as a proteolytically active 170-kDa dimer, consisting of two 97-kDa subunits. It is a member of the group type II integral serine proteases, which includes dipeptidyl peptidase IV (DPPIV / CD26) and related type II transmembrane prolyl serine peptidases, which exert their mechanisms of action on the cell surface. Seprase / FAP colocalized with DPP4 on endothelial cells of capillary-like microvessels but not large vessels within invasive breast ductal carcinoma. DPP4 and seprase exhibit multiple functions due to their abilities to form complexes with each other and to interact with other membrane-associated molecules. In association with DPP4, Seprase / FAP is involved in the pericellular proteolysis of the extracellular matrix (ECM), the migration and invasion of endothelial cells into the ECM. Seprase / FAP has a dual function in tumour progression. The proteolytic activity of Seprase has been shown to promote cell invasiveness towards the ECM and also to support tumour growth and proliferation. Seprase / FAP may have a role in tissue remodeling during development and wound healing, and may contribute to invasiveness in malignant cancers.