



# Recombinant Protein Technical Manual

**Recombinant Human FAP/Seprase Protein (His Tag)(Active)**  
RPES2979

## Product Data:

**Product SKU:** RPES2979

**Size:** 10µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** Q12884

## Protein Information:

**Molecular Mass:** 87.2 kDa

**AP Molecular Mass:** 90 kDa

**Tag:** N-His

**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 pmol/min/µg

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** 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°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

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** DPPIV;DPPIVA;FAPA;Fibroblast Activation Protein alpha;SIMP

## Immunogen Information:

**Sequence:** Leu 26-Asp 760

## Background:

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 the peptidase 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 in invadopodia and lamellipodia of migratory activated endothelial cells in collagenous matrix. 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.