

Human FAP / Seprase Protein (His Tag) , Biotinylated

Catalog Number: 10464-H07H-B



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

DPPIV; DPPIVA; FAPA; Fibroblast Activation Protein alpha; SIMP

Protein Construction:

A DNA sequence encoding the human FAP isoform 1 (Q12884-1) extracellular domain (Leu26-Asp760) was fused with the polyhistidine-tag at the N-terminus. The purified protein was biotinylated in vitro.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg protein as determined by the LAL method.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: His

Molecular Mass:

The recombinant human FAP consists of 751 amino acids and predicts a molecular mass of 87.2 kDa.

Formulation:

Lyophilized from sterile PBS.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

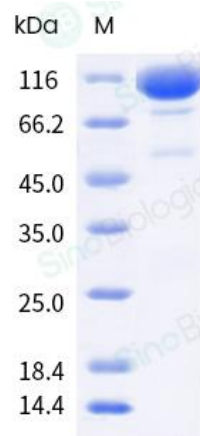
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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.

References

- 1.Mori,Y. et al., 2004, Oncology. 67 (5-6):411-9.
- 2.Aertgeerts K., et al., 2005, J. Biol. Chem. 280:19441-19444.
- 3.Liu T., et al., 2005, J. Proteome Res. 4:2070-2080.

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