

Recombinant Human Prolyl endopeptidase FAP Protein

Catalog No.: RP01348LQ

Sequence Information

Species **Gene ID**
Human 2191

Swiss Prot **Tags**
Q12884 C-His

Synonyms

DPPIV, FAPA, FAPalpha, SIMP, FAP, DPPIV, prolyl endopeptidase FAP, FAPA, FAPalpha, SIMP, Fibroblast activation protein alpha, FAP

Product Information

Source **Purification**
HEK293 cells ≥ 95 % as determined by SDS-PAGE.

Calculated MW **Observed MW**
85.87 kDa 95-100 kDa

Endotoxin

< 0.1 EU/μg of the protein by LAL method.

Formulation

Supplied as a 0.22 μm filtered solution in PBS, pH 7.4.

Reconstitution

Background

FAP (also known as seprase) is a Type II transmembrane serine protease, 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 17-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.

Basic Information

Description

Recombinant Human Prolyl endopeptidase FAP Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Leu26-Asp760) of human FAP/FAPalpha (Accession #NP_004451.2) fused with a 6×His tag at the C-terminus.

Activity

1. Measured by its binding ability in a functional ELISA. Immobilized Human FAP at 1 μg/mL (100 μL/well) can bind FAP Rabbit mAb with a linear range of 0.03-3.94 ng/mL.
2. 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 >2863 pmol/min/μg.
3. Measured by its ability to hydrolyze the substrate Z-Gly-Pro-AMC to Z-Gly-Pro and AMC. The specific activity is >3000 pmol/min/μg.

Shipping

Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -70°C

Operational Notes

Contact

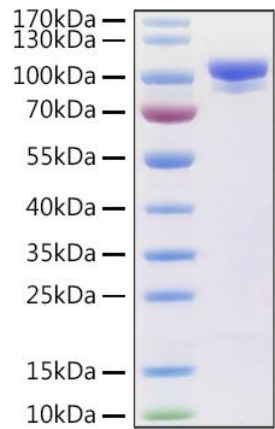
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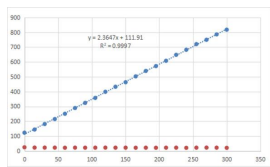
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For your safety and health, please wear a lab coat and disposable gloves for handling.

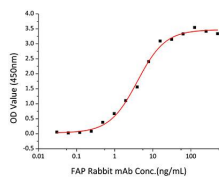
Validation Data



Recombinant Human Prolyl endopeptidase FAP Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Human Prolyl endopeptidase FAP hydrolyze the substrate Z-Gly-Pro-AMC to Z-Gly-Pro and AMC. The specific activity is >3000 pmol/min/μg.



Immobilized Human FAP at 1μg/mL (100 μL/well) can bind FAP Rabbit mAb with a linear range of 0.03–3.94ng/mL.