Cynomolgus Fibroblast Activation Protein alpha / FAP Protein (ECD, His Tag)

Catalog Number: 90879-C07H

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

FAP

Protein Construction:

A DNA sequence encoding the Cynomolgus FAP (XP_005573377.1) (Arg30-Asp760) was expressed with a polyhistidine tag at the N-terminus.

Source: Cynomolgus

Expression Host: HEK293 Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE.

Bio Activity:

1.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 >600 pmol/min/μg(Routinely tested).
2.Immobilized Recombinant Cynomolgus FAP Protein(ECD,His Tag) (Cat: 90879-C07H) at 1 μg/mL (100 μL/well) can bind anti-FAP antibody, human IgG1, the EC50 is 0.5-4 ng/mL (QC tested).

Endotoxin:

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

Predicted N terminal: His

Molecular Mass:

The recombinant FAP consists of 750 amino acids and predicts a molecular mass of 87 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

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

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

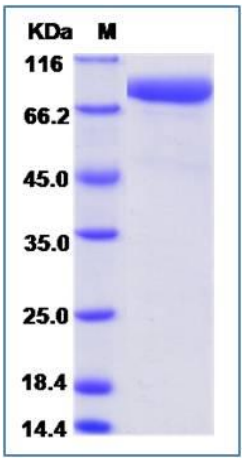
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Seprase, also known as 17 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 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.

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.