Biotinylated Human FAP Protein, His,Avitag™, active dimer (MALS verified)

Catalog # FAP-H82Q6

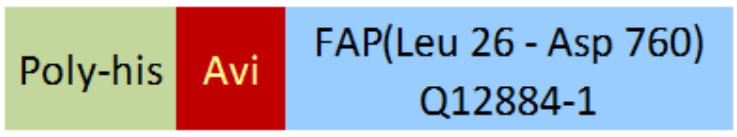
Synonym

FAP,FAPalpha,SIMP,Seprase,APCE

Source

Biotinylated Human FAP Protein, His,Avitag(FAP-H82Q6) is expressed from human 293 cells (HEK293). It contains AA Leu 26 - Asp 760 (Accession # Q12884-1).
Predicted N-terminus: His

Molecular Characterization



This protein carries a polyhistidine tag at the N-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 93.1 kDa. The protein migrates as 100-115 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

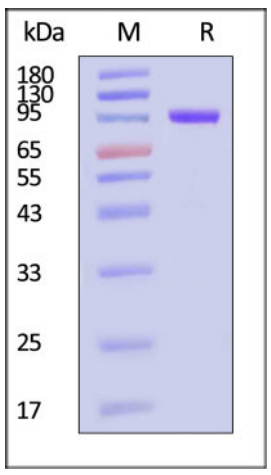
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

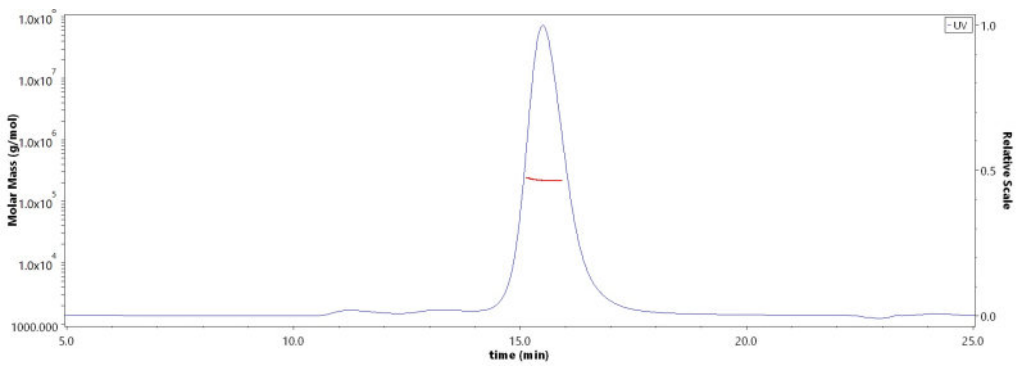
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



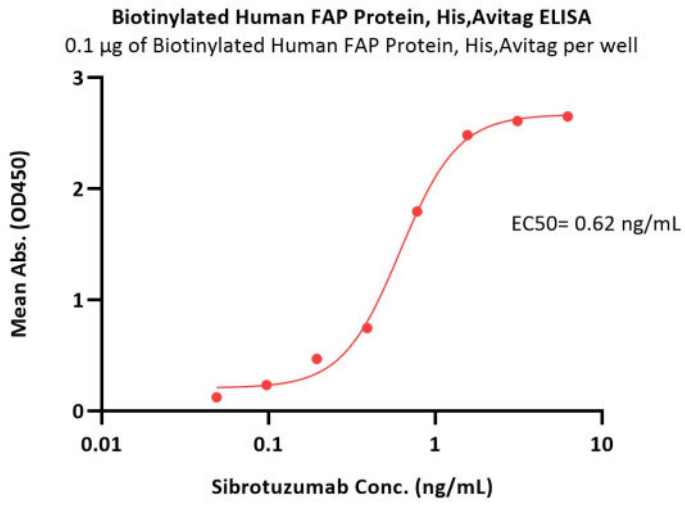
Biotinylated Human FAP Protein, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS



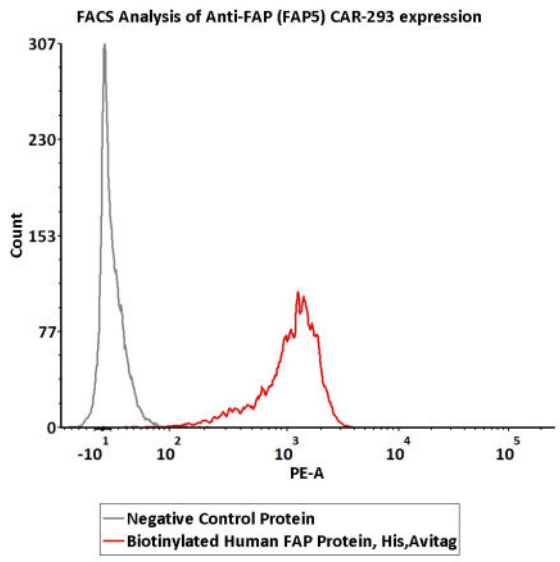
The purity of Biotinylated Human FAP Protein, His,Avitag (Cat. No. FAP-H82Q6) is more than 90% and the molecular weight of this protein is around 200-230 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



Immobilized Biotinylated Human FAP Protein, His,Avitag (Cat. No. FAP-H82Q6) at 1 μg/mL (100 μL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate can bind Sibrotuzumab with a linear range of 0.1-1 ng/mL (QC tested).

Bioactivity-FACS



2e5 of Anti-FAP CAR-293 cells were stained with 100 μL of 10 μg/mL of Biotinylated Human FAP Protein, His,Avitag (Cat. No. FAP-H82Q6) and negative control protein respectively , washed and then followed by PE-SA and analyzed with FACS (Routinely tested).

Bioactivity

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 >4000 pmol/min/μg (QC tested).

Background

FAP (also known as seprase) is a Type II transmembrane serine protease. Both plasma membrane and soluble forms exhibit post-proline cleaving endopeptidase activity, with a marked preference for Ala/Ser-Gly-Pro-Ser/Asn/Ala consensus sequences. Degrade also gelatin, heat-denatured type I collagen. Also has dipeptidyl peptidase activity, with a preference for Ala-Pro, Ile-Pro, Gly-Pro, Arg-Pro and Pro-Pro. The plasma membrane form, in association with either DPP4, PLAUR or

integrins, is involved in the pericellular proteolysis of the extracellular matrix (ECM), and hence promotes cell adhesion, migration and invasion through the ECM. Promotes glioma cell invasion through the brain parenchyma by degrading the proteoglycan brevican. Acts as a tumor suppressor in melanocytic cells through regulation of cell proliferation and survival in a serine protease activity-independent manner.

Clinical and Translational Updates