Mouse FAP Protein, His Tag, active dimer (MALS verified)

Catalog # FAP-M52H3

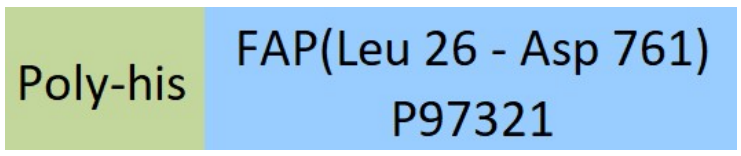
Synonym

FAP,FAPalpha,SIMP,Seprase,APCE

Source

Mouse FAP, His Tag(FAP-M52H3) is expressed from human 293 cells (HEK293). It contains AA Leu 26 - Asp 761 (Accession # P97321).
Predicted N-terminus: His

Molecular Characterization



This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 87.1 kDa. The protein migrates as 80-95 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

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

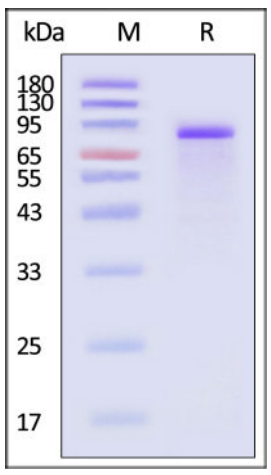
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

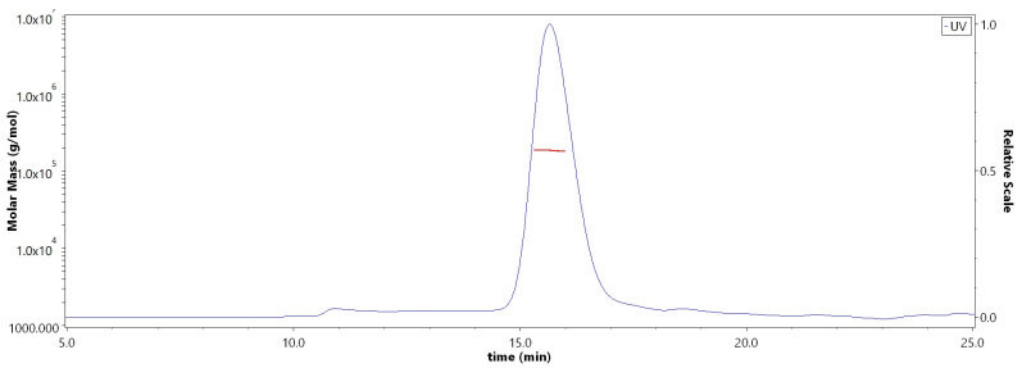
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



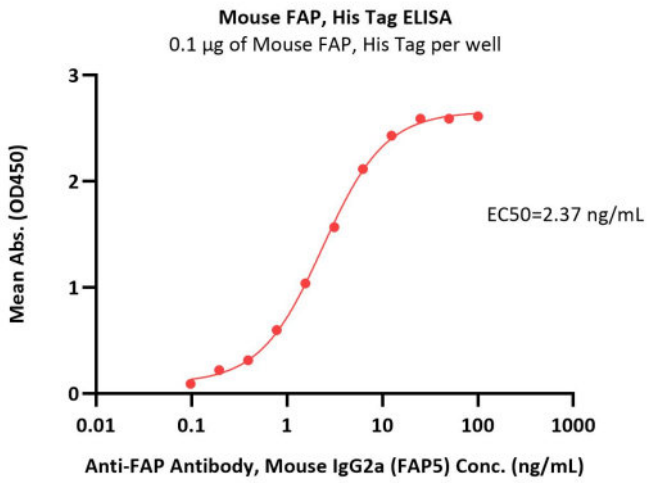
Mouse FAP, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS



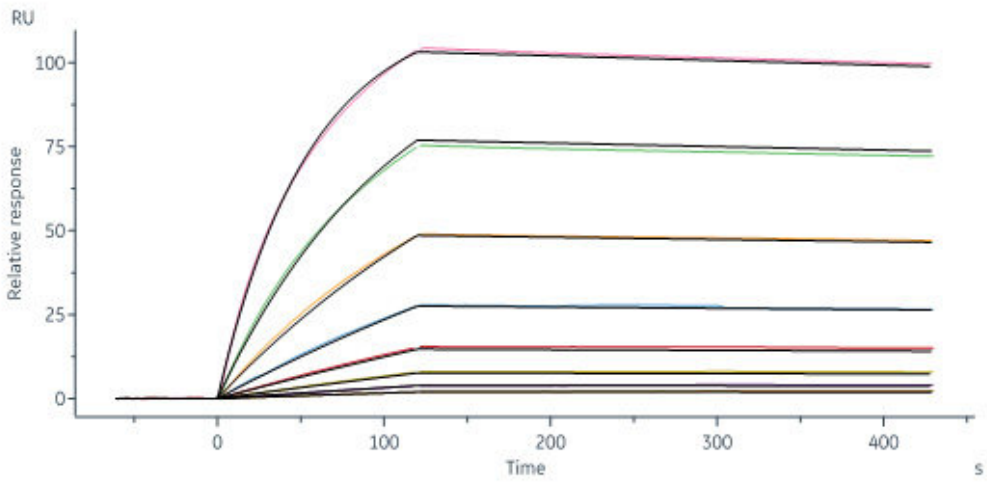
The purity of Mouse FAP, His Tag (Cat. No. FAP-M52H3) is more than 90% and the molecular weight of this protein is around 180-190 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



Immobilized Mouse FAP, His Tag (Cat. No. FAP-M52H3) at 1 μg/mL (100 μL/well) can bind Anti-FAP Antibody, Mouse IgG2a (FAP5) with a linear range of 0.1-3 ng/mL (QC tested).

Bioactivity-SPR



Anti-FAP Antibody, Mouse IgG2a (FAP5) captured on CM5 chip via anti-mouse antibodies surface can bind Mouse FAP, His Tag (Cat. No. FAP-M52H3) with an affinity constant of 1.94 nM as determined in a SPR assay (Biacore 8K) (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 >6500 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