

FAP Protein, Mouse (HEK293, His)

Cat. No.:	HY-P77934
Synonyms:	FAP; FAPalpha; SIMP; Seprase; APCE; DPPIV; DPPIVA; FAPA
Species:	Mouse
Source:	HEK293
Accession:	P97321-1 (L26-D761)
Gene ID:	14089
Molecular Weight:	Approximately 90-110 kDa due to the glycosylation

PROPERTIES

AA Sequence

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LRPSRVYKPE   GNTKRALTLK   DILNGTFSYK   TYFPNWISEQ
EYLHQSEDDN   IVFYNIETRE   SYIILSNSTM   KSVNATDYGL
SPDRQFVYLE   SDYSKLWRYS   YTATYYIYDL   QNGEFVRGYE
LPRPIQYLCW   SPVGSKLAYV   YQNNIYLKQR   PGDPPFQITY
TGRENRI FNG   IPDWVYEEEM   LATKYALWWS   PDGKFLAYVE
FNDSDIPIIA   YSYYGDGQYP   RTINIPYPKA   GAKNPVVRVF
IVDTTYPHHV   GPMEVPVPEM   IASSDYYSW   LTWVSSERVC
LQWLKRVQNV   SVLSICDFRE   DWHAWEC PKN   QEHVEESRTG
WAGGFFVSTP   AFSQDATSY Y   KIFSDKDG YK   HIHYIKD TVE
NAIQITSGKW   EAIYIFRVTQ   DSLFYSSNEF   EGYPGRRNIY
RISIGNSPPS   KKCVTCHLRK   ERCQY YTASF   SYKAKYYALV
CYGPGLP IST   LHDGRTDQE I   QVLEENKELE   NSLRNIQLPK
VEIKK LK DGG   LTFWYKMILP   PQFDRSKKYP   LLIQVYGGPC
SQSVKSVFAV   NWITYLASKE   GIVIALVDGR   GTAFQGDKFL
HAVYRKLGVY   EVEDQLTAVR   KFIEMGFIDE   ERIAIWGSY
GGYVSSLALA   SGTGLFKCGI   AVAPVSSWEY   YASIYSERFM
GLPTKDDNLE   HYKNSTVMAR   AEYFRNVDYL   LIHG TADDNV
HFQNSAQIAK   ALVNAQVDFQ   AMWYSDQNHG   ISSGRSQNHL
YTHMTHFLKQ   CFS LSD
  
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Biological 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 >1871.29 pmol/min/μg, as measured under the described conditions.

2. Immobilized Mouse FAP, His Tag at 1 μg/mL (100 μl/well) on the plate. Dose response curve for Anti-FAP Antibody, hFc Tag with the EC₅₀ of 4.6 ng/mL determined by ELISA.

Appearance

Lyophilized powder

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4 or 50 mM Tris-HCL, 300 mM NaCl, pH 8.0

Endotoxin Level

<1 EU/μg, determined by LAL method.

Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

FAP Protein is a cell surface glycoprotein serine protease that is involved in various cellular processes such as tissue remodeling, fibrosis, wound healing, inflammation, and tumor growth. It exhibits endopeptidase activity, particularly cleaving post-proline residues, and can degrade substances like alpha-2-antiplasmin SERPINF2 and SPRY2. FAP Protein also has dipeptidyl peptidase activity, with a preference for specific dipeptide substrates. It interacts with other proteins like DPP4, PLAUR, and integrins to promote pericellular proteolysis of the extracellular matrix, leading to cell adhesion, migration, and invasion. Additionally, FAP Protein plays a role in tissue remodeling, wound healing, and cell invasiveness in malignant melanoma cancers. It also enhances tumor growth by promoting angiogenesis, collagen fiber degradation, and apoptosis while reducing the immune system's antitumor response. In melanocytic cells, FAP Protein acts as a tumor suppressor by regulating cell proliferation and survival independently of its serine protease activity.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA