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Recombinant human FAP protein

Catalog Number: ATGP3988

PRODUCT INFORMATION

Expression system
Baculovirus

Domain
26-760aa

UniProt No.
Q12884

NCBI Accession No.
NP_004451.2

Alternative Names
Fibroblast activation protein, DPPIV Protein, DPPIV, FAPA, Fapalpha Protein, SIMP Protein, Prolyl endopeptidase FAP, 170 kDa melanoma membrane-bound gelatinase, Dipeptidyl peptidase FAP, Fibroblast activation protein alpha, FAPalpha, Gelatine degradation protease FAP, Integral membrane serine protease, Post-proline cleaving enzyme, Serine integral membrane protease, SIMP, Surface-expressed protease, Seprase

PRODUCT SPECIFICATION

Molecular Weight
86.1 kDa (744aa)

Concentration
0.25mg/ml (determined by absorbance at 280nm)

Formulation
Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 20% glycerol

Purity
> 90% by SDS-PAGE

Endotoxin level
< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity
Specific activity is > 5,000 pmol/min/ug, and is defined as the amount of enzyme that hydrolysis 1.0 pmole of Z-GP-AMC per minute at pH 7.5, at 37C.

Tag
His-Tag

Application
SDS-PAGE, Enzyme Activity

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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BACKGROUND

Description

FAP, also known as Seprase, is a homodimeric integral membrane gelatinase belonging to the serine protease family. FAP includes dipeptidyl peptidase IV (DPPIV / CD26) and related type II transmembrane prolyl serine peptidases, which exert their mechanisms of action on the cell surface. And it's enzymatic activity is dependent on FAP association with DPPIV on the cell surface. The active site of FAP is localized in the extracellular part of the protein and contains a catalytic triad composed of Ser624 Asp702 His734 in humans and mice. It is catalytically active as a 170kD homodimer and has a dipeptidase and an endopeptidase activity. FAP expression is high in reactive stromal fibroblasts of epithelial cancers, granulation tissue of healing wounds, and malignant cells of bone and soft tissue sarcomas. FAP is thought to be involved in the control of fibroblast growth or epithelial-mesenchymal interactions during development, tissue repair, and epithelial carcinogenesis. ecombinant human FAP, fused to His-tag at C-terminus, was expressed in insert cell and purified by using conventional chromatography techniques.

Amino acid Sequence

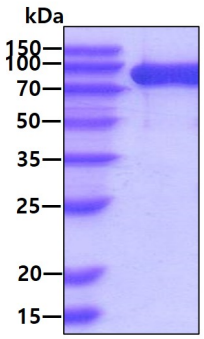
<ADP>LRPSRVH NSEENTMRAL TLKDILNGTF SYKTFFPNWI SGQEYLHQSA DNNIVLYNIE TGQSYTILSN RTMKSVNASN YGLSPDRQFV YLESDYSKLW RYSYTATYYI YDLSNGEFVR GNELPRPIQY LCWSPVGSKL AYVYQNNIYL KQRPGDPPFQ ITFNGRENKI FNGIPDWVYE EEMLATKYAL WWSPNGKFLA YAEFNDTDIP VIAYSYYGDE QYPRTINIPY PKAGAKNPVV RIFIIDTTYP AYVGPQEVPV PAMIASSDYY FSWLTWVTDE RVCLQWLKRV QNVSVLSICD FREDWQTWDC PKTQEHIEES RTGWAGGFFV STPVFSYDAI SYYKIFSDKD GYKHIHYIKD TVENAIQITS GKWEAINIFR VTQDSLFYSS NEFEEYPGRR NIYRISIGSY PPSKKCVTCH LRKERCQYYT ASFSDYAKYY ALVCYGPGIP ISTLHDGRTD QEIKILEENK ELENALKNIQ LPKEEIKKLE VDEITLWYKM ILPPQFDRSK KYPLLIQVYG GPCSQSVRSV FAVNWISYLA SKEGMVIALV DGRGTAFQGD KLLYAVYRKL GVYEVEDQIT AVRKFIEMGF IDEKRIAIWG WSYGGYVSSL ALASGTGLFK CGIAVAPVSS WEYYASVYTE RFMGLPTKDD NLEHYKNSTV MARAEYFRNV DYLLIHGTAD DNVHFQNSAQ IAKALVNAQV DFQAMWYSDQ NHGLSGLSTN HLYTHMTHFL KQCFSLSD<HH HHHH>

General References

Scanlan, M.J. et al. (1994) Proc. Natl. Acad. Sci. USA 91:5657-5661.
Mori,Y. et al., 2004, Oncology. 67 (5-6):411-419.
O'Brien,P. et al., 2008, Biochim Biophys Acta. 1784 (9):1130-1145.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain