

## FAP Protein, Cynomolgus (HEK293, His)

<b>Cat. No.:</b>	HY-P75759
<b>Synonyms:</b>	Prolyl endopeptidase FAP; FAP; FAPA; DPPIV; SIMP; Fapalpha
<b>Species:</b>	Cynomolgus
<b>Source:</b>	HEK293
<b>Accession:</b>	XP_005573377.1 (R30-D760)
<b>Gene ID:</b>	102134935
<b>Molecular Weight:</b>	Approximately 87 kDa

### PROPERTIES

#### AA Sequence

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RVHNS EENTM   RALTLKDI LN   GTFSYKTF FP   NWISGQEY LH
QSADNNIVLY   NIETGQSYTI   LSNRTMKSVN   ASNYGLSPDR
QFVYLESDYS   KLWRYSYTAT   YYIYDLSNGE   FVRGNELPRP
IQYLCWSPVG   SKLAYVYQNN   IYLKQRPGDP   PFQITFNGRE
NKIFNGIPDW   VYEEEMLATK   YALWWSPNGK   FLAYAEFN DT
DIPVIAYSYY   GDEQYPR TIN   IPYPKAGAKN   PFVRIFIID T
TYPAYVGPQE   VPVPAMIASS   DYYFSWLTWV   TDERVCLQWL
KRVQNVSVLS   ICDFRE DWQT   WDCPKTQEH I   EESRTGWAGG
FFVSTPVFSY   DAISYYKIFS   DKDGYKHIHY   IKDTVENAI Q
ITSGKWEAIN   IFRVTQDSL F   YSSNEFEDYP   GRRNIYRIS I
GSYPPSKKCV   TCHLRKER CQ   YYTASFSDYA   KYVALVCYGP
GIPISTLHDG   RTDQEIKILE   ENKELENALK   NIQLPK EEIK
KLEVDEITLW   YKMILPPQFD   RSKKYPLLIQ   VYGGPCSQSV
RSVFAVNWIS   YLASKEGMVI   ALVDGRGTAF   QGDKLLYAVY
RKLGVYEVED   QITAVRKFIE   MGFIDEKR IA   IWGWSYGGYV
SSLALASGTG   LFKCGI AVAP   VSSWEYYASV   YTERFMGLPT
KDDNLEHYKN   STVMARAEYF   RNVDYLLIHG   TADDNVHFQN
SAQIAKALVN   AQVDFQAMWY   SDQNHGLSGL   STNHLYTHMT
HFLKQCFSLS   D

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#### Biological Activity

Measured by its ability to convert the substrate benzyloxycarbonylGlyPro7amido4methylcoumarin (ZGPAMC) to ZGlyPro and 7amino4methylcoumarin (AMC) and the specific activity is >600 pmol/min/μg.

#### Appearance

Lyophilized powder.

#### Formulation

Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.

#### 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<sub>2</sub>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 type II transmembrane serine protease that promotes cell invasion and tumor growth, and is almost completely expressed in pathological conditions such as fibrosis, arthritis, and cancer. FAP protein has dipeptidyl peptidase activity, thus being able to cleave neuropeptide Y, peptide YY, substance P, and brain natriuretic peptide. FAP protein can cleave  $\alpha$ -2 anti-fibrinolytic enzyme, converting  $\alpha$ 2-anti-fibrinolytic enzyme into a more effective fibrinolytic inhibitor, with the function of enhancing coagulation. FAP protein promotes tumor growth through multiple mechanisms such as proliferation, invasion, angiogenesis, epithelial-mesenchymal transition, stem cell promotion, immune suppression, and drug resistance. FAP protein is associated with various human pathologies, including fibrosis, arthritis, atherosclerosis, autoimmune diseases, metabolic diseases, and cancer<sup>[1][2]</sup>.

Targeting FAP Protein to cancer-related fibroblasts can achieve highly specific imaging and treatment of solid tumors<sup>[3]</sup>.

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

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