

Recombinant human NPEPPS protein

Catalog Number: ATGP4156

PRODUCT INFORMATION

Expression system

HEK293

Domain

1-919aa

UniProt No.

P55786

NCBI Accession No.

NP_006301.3

Alternative Names

Puromycin-sensitive aminopeptidase, PSA, Cytosol alanyl aminopeptidase, AAP-S, MP100, aminopeptidase puromycin sensitive

PRODUCT SPECIFICATION

Molecular Weight

104kDa (925aa)

Concentration

0.25mg/ml (determined by Absorbance at 280nm)

Formulation

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

Purity

> 85% by SDS-PAGE

Endotoxin level

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

Biological Activity

Specific activity is > 800 pmol/min/ug, and is defined as the amount of enzyme that cleaves 1 pmole of H-Leu-AMC per minute at pH7.0 at 37°C.

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

NPEPPS, also known as PSA, is a zinc metallopeptidase with broad substrate specificity for several peptides. It hydrolyzes N-terminal amino acids from its substrates. This protein is expressed in most tissues as a cytoplasmic protein, but a membrane-associated form has been identified in the brain. This protein is involved in proteolytic events which is essential for cell growth and viability. It also may act as a regulator of neuropeptide activity. It is used as a biomarker to detect damage to the kidneys, and that may be used to help diagnose certain kidney disorders. It is found at high levels in the urine when there are kidney problems. It is also known to degrade the tau protein, which accumulates and polymerizes in some neurodegenerative diseases. Recombinant human NPEPPS, fused to His-tag at C-terminus, was expressed in HEK293 and purified by using conventional chromatography techniques.

Amino acid Sequence

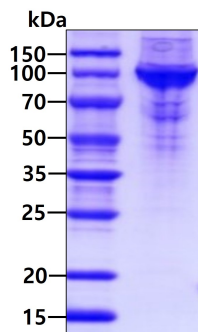
MWLA AAPSL ARLLFLGPP PPLLLLVFS RSSRRRLHSL GLAAMPEKRP FERLPADVSP INYSLCLKPD LLDFTFEGKL EAAQVRQAT NQIVMNCADI DIITASYAPE GDEEIHATGF NYQNEDEKVT LSPSTLQTG TGTLKIDFVG ELNDKMKGFY RSKYTTPSGE VRYAAVTQFE ATDARRAFPC WDEPAIKATF DISLVVPKDR VALSNMNVID RKPYPDENL VEVKFARTPV MSTYLVAFFV GEYDFVETRS KDGVCVRVYT PVGKAEQGF ALEVAAKTLP FYKDYFNVPY PLPKIDLIAI ADFAAGAMEN GLVTYRETA LLIDPKNSCS SSRQWVALVV GHELHQWFG NLVTMEWVTH LWLNEGFASW IEYLCVDHCF PEYDIWTQFV SADYTRAQEL DALDNSHPLE VSVGHPSEVD EIFDAISYSK GASVIRMLHD YIGDKDFKKG MNMYLTKFQQ KNAATEDLWE SLENASGKPI AAVMNTWTKQ MGFPLIYVEA EQVEDDRLLR LSQKKFCAGG SYVGEDCPQW MVPITISTSE DPNQAKLKIL MDKPEMNVVL KNVKPDQWVK LNLGTVGFYR TQYSSAMLES LLPGIRDLSL PPVDRGLQNL DLFSLARAGI ISTVEVLKVM EAFVNEPNYT VWSLSCNLG ILSTLLSHTD FYEEIQEFVK DVFSPIGERL GWDPKPGEGH LDALLRGLVL GKLKAGHKA TLEEARRRFK DHVEGKQILS ADLRSPVYLT VLKHGDGTTL DIMLKLHKQA DMQEEKNRIE RVLGATLLPD LIQKVLTFAL SEEVRPQDTV SVIGGVAGGS KHGRKAAWKF IKDNWEELYN RYQGGFLISR LIKLSVEGFA VDKMAGEVKA FFESHAPPSA ERTIQCCEN ILLNAAWLKR DAESIHQYLL QRKASPPTV<H HHHHH>

General References

- Kudo LC, et al. (2011) Hum Mol Genet. 20:1820-1833.
- Jones RT, et al. (2024) Cancer Res. 84:1699-1718.
- Lenskaya V, et al. (2024) J Cutan Pathol. 51:419-423.

DATA

SDS-PAGE



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