

Puromycin Sensitive Aminopeptidase Active Protein | PSA active protein

Active Puromycin Sensitive Aminopeptidase (PSA)

CATALOG #
AAA150133

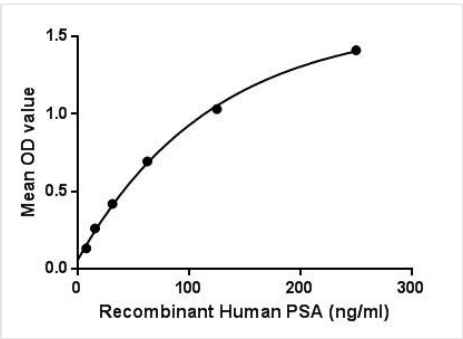
APPLICATIONS
Activity Assay, Cell Culture

PRODUCT SYNONYMS

Puromycin Sensitive Aminopeptidase; Active Puromycin Sensitive Aminopeptidase (PSA); NPEPPS; AAP-S; Metalloproteinase MP100; Cytosol alanyl aminopeptidase; PSA active protein

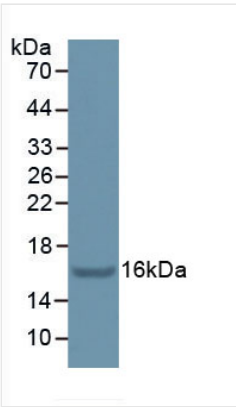
PRODUCT SPECIFICATIONS

Purity/Purification	>97%
Form/Format	Freeze-dried powder 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Sequence Positions	Thr141~Val272
Sequence Length	875
Applicable Applications for PSA active protein	Activity Assay, Cell Culture
Species	Human
Tag	N-terminal His Tag
Isoelectric Point	6.3
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Avoid repeated freeze/thaw cycles. Stability: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

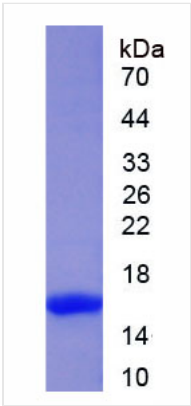


Bioactivity

Figure. The binding activity of PSA with PDIA3. Puromycin Sensitive Aminopeptidase (PSA) also known as cytosol alanyl aminopeptidase or alanine aminopeptidase (AAP) is used as a biomarker to detect damage to the kidneys, and that may be used to help identify certain kidney disorders. It is found at high levels in the urine when there are kidney problems. PSA has been proposed to function in a variety of processes, including metabolism of neuropeptidase, regulation of the cell cycle, and hydrolysis of proteasomal products to amino acids. Besides, Protein Disulfide Isomerase A3 (PDIA3) has been identified as an interactor of PSA, thus a binding ELISA assay was conducted to detect the interaction of recombinant human PSA and recombinant human PDIA3. Briefly, PSA were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to PDIA3-coated microtiter wells and incubated for 2h at 37. Wells were washed with PBST and incubated for 1h with anti-PSA pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of PSA and PDIA3 was shown in Figure 1, and this effect was in a dose dependent manner.



WB (Western Blot)
Figure. Western Blot



SDS-PAGE
Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for PSA active protein	Metabolic pathway
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4210726
NCBI GeneID	9520
UniProt Accession #	P55786
Molecular Weight	Predicted Molecular Mass: 16.2kDa Accurate Molecular Mass: 16kDa
NCBI Official Full Name	puromycin sensitive aminopeptidase, partial

NCBI Official Synonym Full Names	aminopeptidase puromycin sensitive
NCBI Official Symbol	NPEPPS
NCBI Official Synonym Symbols	PSA; AAP-S; MP100
NCBI Protein Information	puromycin-sensitive aminopeptidase
UniProt Protein Name	Puromycin-sensitive aminopeptidase
UniProt Gene Name	NPEPPS
UniProt Synonym Gene Names	PSA; PSA; AAP-S
UniProt Entry Name	PSA_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/psa-active-protein/puromycin-sensitive-aminopeptidase/150133>