

# Mouse PSMA / FOLH1 Protein, His Tag (active enzyme) (MALS verified)

Catalog # PSA-M5245



BIOSYSTEMS  
**Acro**  
Surprise Inside!

## Synonym

FOLH1,PSMA,GIG27,FOLH,NAALAD1,PSM,NAALADase I,GCPII,FGCP

## Source

Mouse PSMA, His Tag(PSA-M5245) is expressed from human 293 cells (HEK293). It contains AA Ile 44 - Ala 752 (Accession # [O35409-1](#)).

Predicted N-terminus: His

## Molecular Characterization

Poly-his PSMA(Ile 44 - Ala 752)  
O35409-1

This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 81.5 kDa. The protein migrates as 90-100 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per µg by the LAL method.

## Purity

>95% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22 µm filtered solution in MES and NaCl with trehalose as protectant.

Contact us for customized product form or formulation.

## Reconstitution

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

## Storage

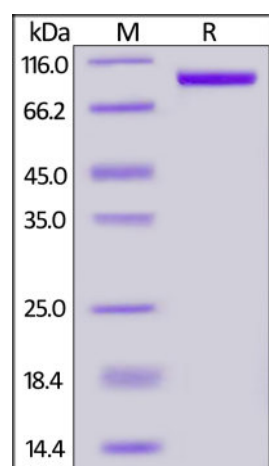
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE

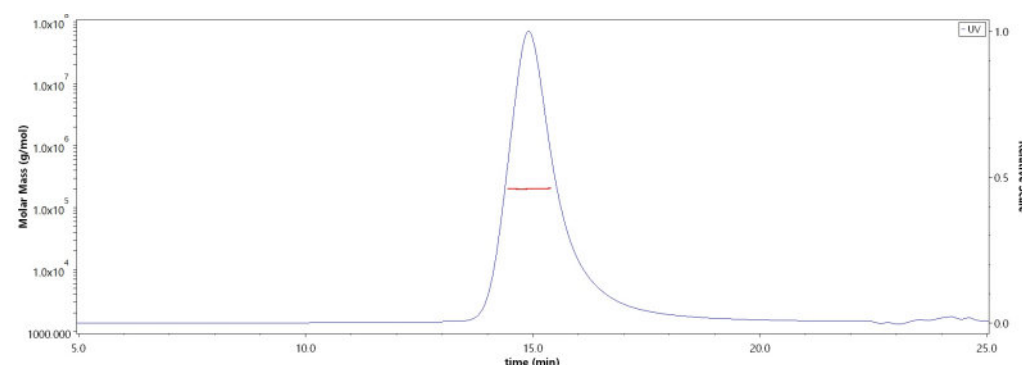


Mouse PSMA, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

## Bioactivity

Measured by its ability to hydrolyze the substrate N-acetyl-L-Asp-L-Glu into N-acetyl-L-Asp and L-Glu. The L-Glu product is measured by fluorescence after its derivatization by ortho-phthaldialdehyde. The specific activity is >350 pmol/min/µg, as measured under the described conditions (QC tested).

## SEC-MALS



The purity of Mouse PSMA, His Tag (Cat. No. PSA-M5245) is more than 85% and the molecular weight of this protein is around 180-220 kDa verified by SEC-MALS.

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## Background

Prostate-specific membrane antigen (PSMA) is also known as Folate hydrolase 1 (FOLH1), Glutamate carboxypeptidase 2 (GCP2), N-acetylated-alpha-linked acidic dipeptidase I (NAALAD1), which belongs to the peptidase M28 family and M28B subfamily. FOLH1 / PSMA is stable at pH greater than 6.5. FOLH1 / PSMA is a type II transmembrane zinc metallopeptidase that is most highly expressed in the nervous system, prostate, kidney, and small intestine. FOLH1 / GCP-2 is homodimer and binds 2 zinc ions per subunit, and required for NAALADase activity. The catalytic activity of PSMA involved in releasing of an unsubstituted, C-terminal glutamyl residue, typically from Ac-Asp-Glu or folylpoly - gamma - glutamates. FOLH1 / GCP-2 / PSMA has both folate hydrolase and N - acetylated - alpha - linked - acidic dipeptidase (NAALADase) activity and has a preference for tri-alpha-glutamate peptides. GCP-2 / PSMA involved in prostate tumor progression and also exhibits a dipeptidyl-peptidase IV type activity. In vitro, cleaves Gly-Pro-AMC.

## Clinical and Translational Updates

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