

**Synonym**

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

Source

Biotinylated Mouse PSMA Protein, His,Avitag(PSA-M82Q4) is expressed from human 293 cells (HEK293). It contains AA Ile 44 - Ala 752 (Accession # [O35409-1](#)).

Predicted N-terminus: His

Molecular Characterization

This protein carries a polyhistidine tag at the N-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 83.2 kDa. The protein migrates as 95-120 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Supplied as 0.2 µm filtered solution in 25 mM MES, 500 mM NaCl, pH6.5 with glycerol as protectant.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

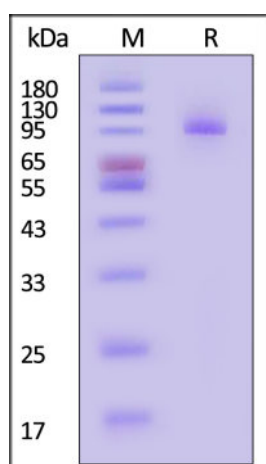
Storage

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

Biotinylated Mouse PSMA Protein, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

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

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after its derivatization by ortho-phthaldialdehyde. The specific activity is >250 pmol/min/μg, as measured under the described conditions (QC tested).

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 (ALAD1), 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 ALADase 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 (ALADase) 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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