

# Biotinylated Human PSMA / FOLH1 Protein, Fc,Avitag™ (MALS verified)

Catalog # PSA-H82F7



## Synonyms

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

## Source

Biotinylated Human PSMA Protein, Fc,Avitag (PSA-H82F7) is expressed from human 293 cells (HEK293). It contains AA Lys 44 - Ala 750 (Accession # [Q04609-1](#) ).

Predicted N-terminus: Pro

## Molecular Characterization



This protein carries a human IgG1 Fc tag at the N-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 107.7 kDa. The protein migrates as 100-105 kDa and 120-140 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.

## Purity

>90% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, 25 mM Arginine, 150 mM NaCl, pH7.5 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.**

## Shipping and Storage

This product is shipped at ambient temperature.

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

**Please avoid repeated freeze-thaw cycles.**

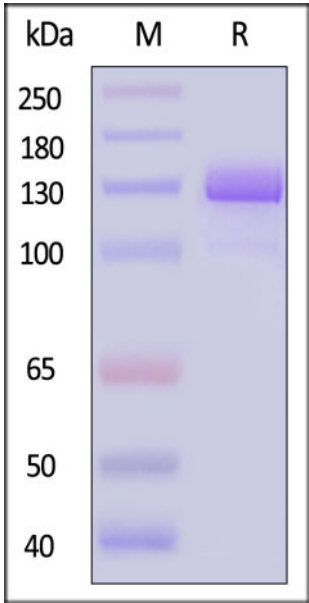
This product is stable after storage at:

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

## ACRO Quality Management System

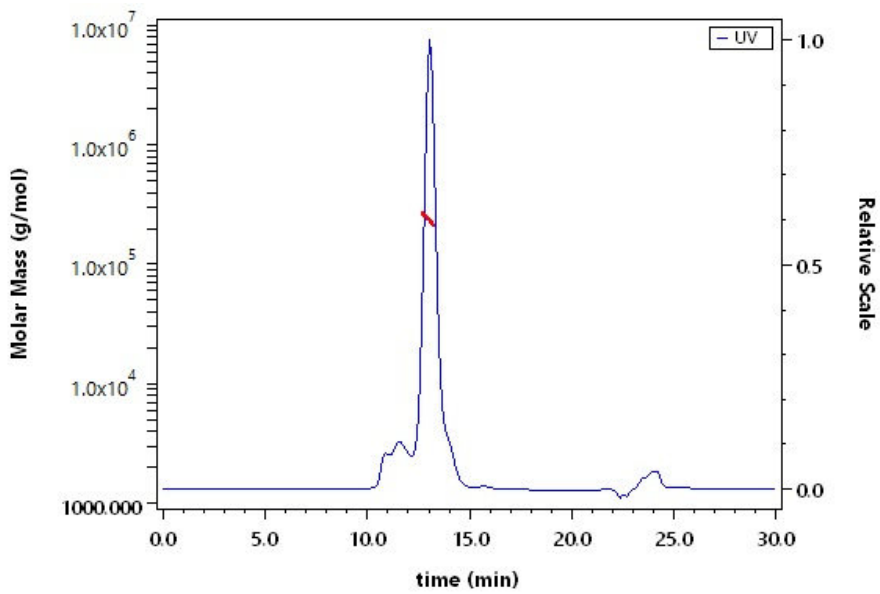
- [QMS\(ISO, GMP\)](#).
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



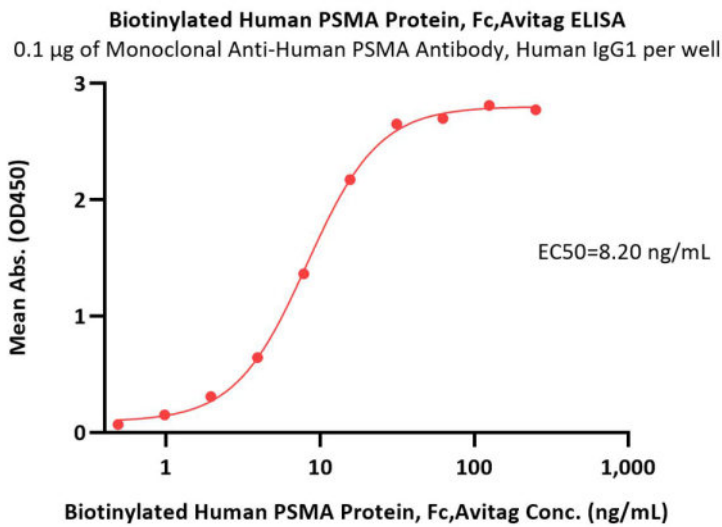
Biotinylated Human PSMA Protein, Fc,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS

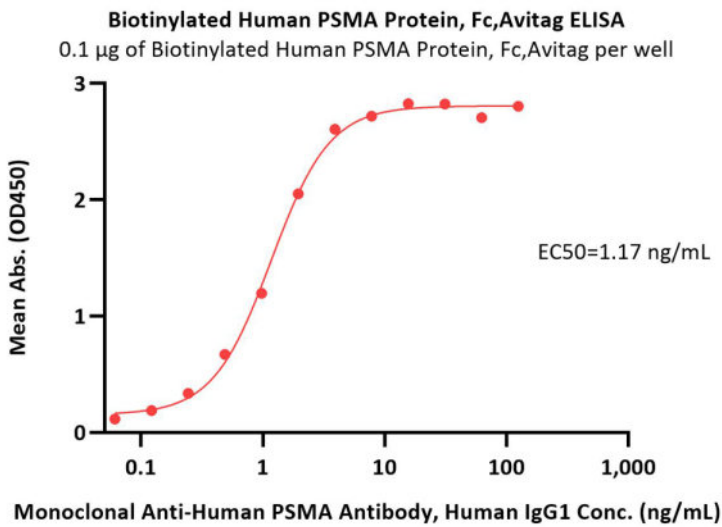


The purity of Biotinylated Human PSMA Protein, Fc,Avitag (Cat. No. PSA-H82F7) is more than 80% and the molecular weight of this protein is around 220-260 kDa verified by SEC-MALS.

Bioactivity-ELISA



Immobilized Monoclonal Anti-Human PSMA Antibody, Human IgG1 at 1 µg/mL (100 µL/well) can bind Biotinylated Human PSMA Protein, Fc,Avitag (Cat. No. PSA-H82F7) with a linear range of 0.5-16 ng/mL (QC tested).



Immobilized Biotinylated Human PSMA Protein, Fc,Avitag (Cat. No. PSA-H82F7) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Monoclonal Anti-Human PSMA Antibody, Human IgG1 with a linear range of 0.1-2 ng/mL (Routinely 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.



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