

**HUMAN PSMA PROTEIN, HFC TAG****Cat.#:** 11266**Product Name:** Human PSMA Protein**Size:** 10 µg, 50 µg and 100 µg**Synonyms:** FGCP;FOLH;GCP2;GCP11;mGCP;NAALAD1;NAALAdase;PSM;PSMA**Target:** PSMA**UNIPROT ID:** Q04609**Description:** Recombinant human PSMA protein with N-terminal human Fc tag

**Background:** This gene encodes a type II transmembrane glycoprotein belonging to the M28 peptidase family. The protein acts as a glutamate carboxypeptidase on different alternative substrates, including the nutrient folate and the neuropeptide N-acetyl-L-aspartyl-L-glutamate and is expressed in a number of tissues such as prostate, central and peripheral nervous system and kidney. A mutation in this gene may be associated with impaired intestinal absorption of dietary folates, resulting in low blood folate levels and consequent hyperhomocysteinemia. Expression of this protein in the brain may be involved in a number of pathological conditions associated with glutamate excitotoxicity. In the prostate the protein is up-regulated in cancerous cells and is used as an effective diagnostic and prognostic indicator of prostate cancer. This gene likely arose from a duplication event of a nearby chromosomal region. Alternative splicing gives rise to multiple transcript variants encoding several different isoforms.

**Species/Host:** HEK293

**Molecular Weight:** The protein has a predicted molecular mass of 105.7 kDa after removal of the signal peptide. The apparent molecular mass of hFc-PSMA is approximately 130 kDa due to glycosylation.

**Molecular Characterization:** hFc(Glu99-Ala330) PSMA(Lys44-Ala750)

**Purity:** The purity of the protein is greater than 90% as determined by SDS-PAGE and Coomassie blue staining.

**Formulation & Reconstitution:** Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.

**Storage & Shipping:** Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.



Figure 1. Human PSMA Protein, hFc Tag on SDS-PAGE under reducing condition.