

PRODUCT SPECIFICATION



Recombinant anti-human PMSA nanobody 7.

Catalogue number: sdAb-PMSA-Nb7

Background:

An 85 kDa zinc containing metalloenzyme and type II membrane glycoprotein, PMSA (prostate-specific membrane antigen) is also known as glutamate carboxypeptidase II (GCPII) or N-acetyl-L-aspartyl-L-glutamate peptidase I (NAALADase I) or NAAG peptidase. It is encoded by the *FOLH1* (folate hydrolase 1) gene. The protein is highly expressed in the prostate, but overexpressed in prostate cancer. PMSA is an important and approved target for nuclear imaging using different isotopes such as Ga⁶⁸ or F¹⁸ (PET imaging).

Applications: Suitable for immunoprecipitation, ELISA, imaging. This product is for R&D use only, not for drug, diagnostic, therapeutic, household, or other uses.

Source and properties: Raised in llama using 4 human prostate cancer cell lines (LNCaP, PC346C, VCaP, and MDA-PCa-2b) as antigen. Binding affinity was estimated by saturation binding on PSMA-positive PC-310 tumor: **27 nM K_D**.

Availability: PMSA Nb7 comes with a COOH-terminal HA epitope tag. Available in 100 µg, 500 µg, 1000 µg quantities. For bulk amounts, please inquire.

Expression host: VHH single domain antibody purified from *E. coli*.

Storage buffer: 20 mM Tris-HCl pH 8.0, 150 mM NaCl, 1mM DTT, 60 % glycerol. Store at -20°C. The sample will not freeze. Maintain sample in cold environment during transport to increase longevity.

Stability: Store at -20°C upon arrival. For long term storage, aliquot and store at -80°C. Avoid repeated freeze/thaw cycles.

Sources:

*Chatalic et al., 2015 doi: 10.2967/jnumed.115.156729

*Wikipedia: https://en.wikipedia.org/wiki/Glutamate_carboxypeptidase_II

*Genecards: <https://www.genecards.org/Search/Keyword?queryString=PMSA>

Citations:

Kristell L S Chatalic, Joke Veldhoven-Zweistra, Michiel Bolkestein, Sander Hoeben, Gerben A Koning, Otto C Boerman, Marion de Jong, Wytse M van Weerden. (2015) A Novel ¹¹¹In-Labeled Anti-Prostate-Specific Membrane Antigen Nanobody for Targeted SPECT/CT Imaging of Prostate Cancer. doi: 10.2967/jnumed.115.156729.