

# PRODUCT INFORMATION



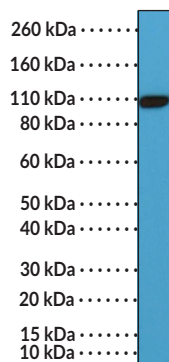
## PSMA (C-Term) Rabbit Monoclonal Antibody (Clone RM327)

Item No. 32265

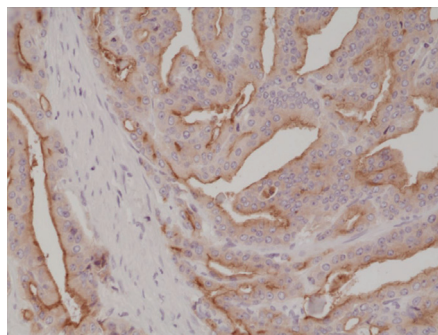
### Overview and Properties

<b>Contents:</b>	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
<b>Synonyms:</b>	Folate Hydrolase 1, FOLH1, GCPII, Glutamate Carboxypeptidase II, NAALADase, Prostate-specific Membrane Antigen
<b>Immunogen:</b>	A peptide from the C-terminal region of human PSMA
<b>Cross Reactivity:</b>	(+) PSMA
<b>Species Reactivity:</b>	(+) Human
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥1 year
<b>Storage Buffer:</b>	PBS, with 50% glycerol, 1% BSA, and 0.09% sodium azide
<b>Clone:</b>	RM327
<b>Host:</b>	Rabbit
<b>Isotype:</b>	IgG
<b>Applications:</b>	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:500-1:1,000 for IHC and 1:1,000-1:2,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Images



WB of LNCaP cell lysates using PSMA (C-Term) Rabbit Monoclonal Antibody (Clone RM327) at a dilution of 1:1,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human prostate cancer tissue using PSMA (C-Term) Rabbit Monoclonal Antibody (Clone RM327) at a 1:1,000 dilution.

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## Description

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Prostate-specific membrane antigen (PSMA) is a type II membrane glycoprotein and a glutamate-preferring carboxypeptidase with roles in folic acid utilization and metabolism encoded by *FOLH1* in humans.<sup>1,2</sup> It is composed of a short intracellular domain, a transmembrane domain, and a large extracellular region that contains enzymatic domains.<sup>1,3</sup> PSMA is expressed in prostate epithelial cells and is highly overexpressed in prostate carcinomas. PSMA is also expressed in the central nervous system, where it metabolizes N-acetyl-aspartyl-glutamate, and in the proximal small intestine, where it functions as a carboxypeptidase and a folate hydrolase, as well as in the neovasculature of various renal, colon, and breast carcinomas.<sup>2,4</sup> Expression of *FOLH1* increases under androgen deprivation conditions *in vitro* and *in vivo* and positively correlates with cancer aggressiveness in patients with prostate cancer.<sup>1</sup> PSMA positron emission tomography (PET) imaging is commonly used in the diagnosis and staging of prostate cancer, as well as to assess therapeutic response.<sup>3</sup> Cayman's PSMA (C-Term) Rabbit Monoclonal Antibody (Clone RM327) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

## References

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1. Chang, S.S. Overview of prostate-specific membrane antigen. *Rev. Urol.* **10(Suppl. 10)**, S13-S18 (2004).
2. Mannweiler, S., Amersdorfer, P., Trajanoski, S., *et al.* Heterogeneity of prostate-specific membrane antigen (PSMA) expression in prostate carcinoma with distant metastasis. *Pathol. Oncol. Res.* **15(2)**, 167-172 (2009).
3. de Galiza Barbosa, F., Queiroz, M.A., Nunes, R.F., *et al.* Nonprostatic diseases on PSMA PET imaging: A spectrum of benign and malignant findings. *Cancer Imaging* **20(1)**, 23 (2020).
4. Ghosh, A. and Heston, W.D.W. Tumor target prostate specific membrane antigen (PSMA) and its regulation in prostate cancer. *J. Cell. Biochem.* **91(3)**, 528-239 (2004).

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