Human PSMA/FOLH1/NAALADase I Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF4234

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human PSMA/FOLH1/NAALADase I in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 5% cross-reactivity with recombinant mouse NAALADase II is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human PSMA/FOLH1/NAALADase I Lys44-Ala750 Accession # Q04609
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

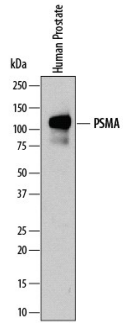
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.2 µg/mL	See Below
Flow Cytometry	2.5 µg/10^6 cells	See Below
Immunohistochemistry	5-15 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

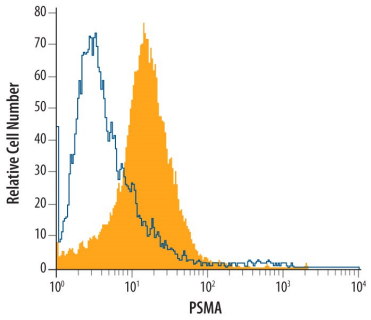
DATA

Western Blot



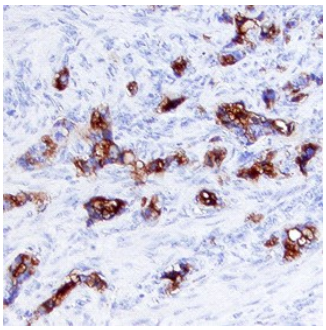
Detection of Human PSMA/FOLH1/NAALADase I by Western Blot. Western blot shows lysates of human prostate tissue. PVDF membrane was probed with 0.2 µg/mL of Sheep Anti-Human PSMA/FOLH1/NAALADase I Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4234) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for PSMA/FOLH1/NAALADase I at approximately 120 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Flow Cytometry



Detection of PSMA/FOLH1/NAALADase I in LnCAP Human Cell Line by Flow Cytometry. LnCAP human prostate cancer cell line was stained with Human PSMA/FOLH1/NAALADase I Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4234, filled histogram) or control antibody (Catalog # 5-001-A, open histogram), followed by NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # NL010).

Immunohistochemistry



PSMA/FOLH1/NAALADase I in Human Prostate Cancer Tissue. PSMA/FOLH1/NAALADase I was detected in immersion fixed paraffin-embedded sections of human prostate cancer tissue using Sheep Anti-Human PSMA/FOLH1/NAALADase I Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4234) at 5 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counter-stained with hematoxylin (blue). Specific labeling was localized to the plasma membrane and extracellular space. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956

Human PSMA/FOLH1/NAALADase I Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF4234

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Human prostate-specific membrane antigen (PSMA), a tumor marker in prostate cancer encoded by the FOLH1 gene, is a type II transmembrane zinc metallopeptidase that is most highly expressed in the nervous system, prostate, kidney, and small intestine (1, 2). The enzyme is also known as glutamate carboxypeptidase II (GCPII), folate hydrolase 1, folypoly-gamma-glutamate carboxypeptidase (FGCP), and N-acetylated-alpha-linked acidic dipeptidase I (NAALADase I). In the brain, PSMA hydrolyzes the neurotransmitter N-acetyl-Asp-Glu to produce glutamate, another neurotransmitter. Inhibition of brain PSMA activity is considered to be a promising approach for the treatment of neurological disorders associated with glutamate excitotoxicity, such as stroke, chronic pain, and amyotrophic lateral sclerosis (3). Intestinal PSMA hydrolyzes folylpoly-γ-glutamates, facilitating the uptake of folate (4).

References:

1. Silver, D.A. *et al.* (1997) Clin. Cancer Res. **3**:81.
2. Carter, R.E. *et al.* (1996) Pro. Natl. Acad. Sci. USA **93**:749.
3. Jackson, P.F. and B.S. Slusher (2001) Curr. Med. Chem. **8**:949.
4. Heston, W.D. (1997) Urology **49**:104.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956