

Anti-PSMA Purified FOLH1 Monoclonal Antibody

Catalog Number: M02846-2

About FOLH1

Glutamate carboxypeptidase II (GCPII), also known as N-acetyl-alpha-linked acidic dipeptidase I (NAALADase I), folate hydrolase (FOLH1), and prostate-specific membrane antigen (PSMA), is an approximately 95-110 kDa type II transmembrane glycoprotein expressed in various tissues. In nervous system GCPII cleaves abundant N-acetylaspartylglutamate, which is released from neurons in a calcium-dependent manner, to N-acetylaspartate and glutamate. As immoderate glutamate concentration is neurotoxic, GCPII contributes to pathological conditions regarding e.g. Alzheimer's disease, Huntington's disease, epilepsy, schizophrenia, stroke or neuropathic pain and appears to be an interesting therapeutic target. In jejunum GCPII hydrolyzes pteroylpoly-gamma-glutamate to folate and glutamate, enabling folate to be absorbed by gastrointestinal tract. GCPII, which is present in a number of tissues at low levels, is overexpressed in neovasculature of most solid tumours and is a target enzyme for diagnosis and treatment of prostate cancer. Normal human prostate express more mRNA coding for a cytosolic GCPII form truncated at the N-terminus (PSM') than mRNA for membrane-bound GCPII, and this ratio is reversed upon malignant transformation.

Overview

Product Name	Anti-PSMA Purified FOLH1 Monoclonal Antibody
Reactive Species	Human, Mouse, Pig, Rat
Description	Boster Bio Anti-PSMA Purified FOLH1 Monoclonal Antibody (Catalog# M02846-2). Tested in WB, IHC-P, ICC application(s). This antibody reacts with Pig, Mouse, Rat, Human.
Application	IHC-P, ICC, WB
Clonality	Monoclonal GCP-04
Formulation	Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Storage Instructions	Store at 2-8°C. Do not freeze.
Host	Mouse
Uniprot ID	Q04609

Technical Details

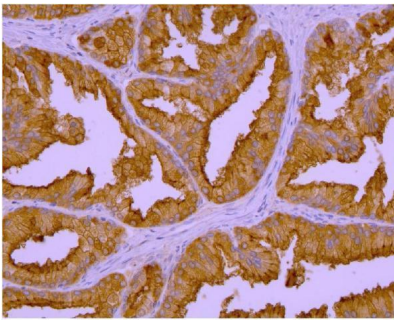
Immunogen	Recombinant fragment of human GCPII (amino acids 44-750) produced in S2 cells. The mouse monoclonal antibody GCP-04 recognizes amino acids 100-104 of extracellular domain of denaturated glutamate carboxypeptidase II (PSMA, NAALADase, FOLH1), an approximately 95-110 kDa transmembrane glycoprotein.
Predicted Reactive Species	Primate
Cross Reactivity	This antibody does not cross-react with Thy-1.1 alloantigen.
Isotype	Mouse IgG1

Form	Liquid
Concentration	1 mg/ml
Purification	Purified by protein-A affinity chromatography.
Suggested Dilutions	Western blotting: 1 ug/ml; positive control: LNCaP cell line. Sample preparation: Resuspend approx. 50 mil. cells in 1 ml cold lysis buffer (1% NP-40). Incubate 30 min on ice. Mix lysate with non-reducing/reducing Laemmli SDS-PAGE sample buffer. Both reducing and non-reducing conditions.

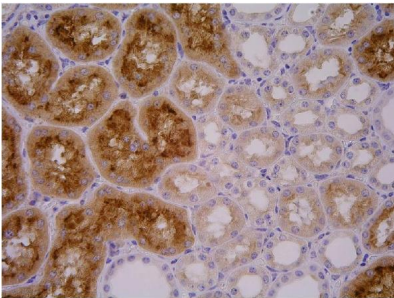
Anti-PSMA Purified FOLH1 Monoclonal Antibody (M02846-2) Images



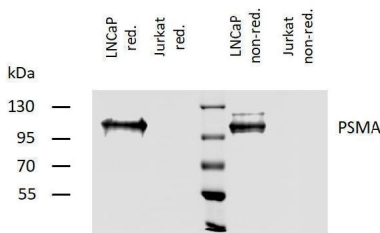
Immunohistochemistry staining of GCP II in human medulla oblongata by GCP-04 monoclonal antibody. Mag. 40x; positive astrocytes in white matter.



Immunohistochemistry staining of GCP II in human prostate by GCP-04 monoclonal antibody. Mag. 400x; positive epithelium of the prostate glands.



Immunohistochemistry staining of GCP II in porcine kidney by GCP-04 monoclonal antibody. Highly positive proximal glomeruli.



Western blotting analysis of human PSMA using mouse monoclonal antibody GCP-04 on lysates of LNCaP cell line and Jurkat cell line (PSMA non-expressing cell line; negative control) under reducing and non-reducing conditions. Nitrocellulose membrane was probed with 2 µg/ml of mouse anti-PSMA monoclonal antibody followed by IRDye800-conjugated anti-mouse secondary antibody.

1 Publications Citing This Product

1. PubMed ID: 31105564, Ability to Suppress TGF-beta-Activated Myofibroblast Differentiation Distinguishes the Anti-pulmonary Fibrosis Efficacy of Two Danshen-Containing Chinese Herbal Medicine Prescriptions Rui Shao,1,2,† Fu-jiang Wang,1,2,† Ming Lyu,1,2,‡ Jian Yang,1,2 Peng Zha

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