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Datasheet for ABIN302088 anti-PSMA antibody (AA 44-750)

3 Images	
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3 Publications



Overview

Quantity:	0.1 mg
Target:	PSMA (FOLH1)
Binding Specificity:	AA 44-750
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This PSMA antibody is un-conjugated
Application:	Flow Cytometry (FACS), Immunocytochemistry (ICC), Immunoprecipitation (IP), Cytometry by Time of Flight (CyTOF)

Product Details

Immunogen:	amino acids 44-750 of human GCPII	
Clone:	GCP-05	
lsotype:	lgG1	
Specificity:	The mouse monoclonal antibody GCP-05 recognizes extracellular domain (preferentially in native form) of glutamate carboxypeptidase II (NAALADase, FOLH1, PSMA), an approximately 95-110 kDa transmembrane glycoprotein expressed mainly in tumour neovasculatures, nervous system and jejunum, which is an important prostate tumour marker.	
Cross-Reactivity (Details):	Human, Other not determined	
Purification:	Purified by protein-A affinity chromatography.	

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Product Details

Purity:

> 95 % (by SDS-PAGE)

Target Details

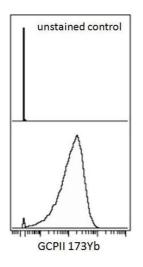
Target:	PSMA (FOLH1)
Alternative Name:	GCPII / PSMA (FOLH1 Products)
Background:	Folate hydrolase 1,Glutamate carboxypeptidase II (GCPII), also known as N-acetyl-alpha-linked acidic dipeptidase I (NAALADase I), folate hydrolase (FOLH1), and prostate-specific membrane antigen (PSMA), is an approximately 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.,GCP2, FOLH1, NAALADase I, PGGCP, FGGCP, FGCP,
Gene ID:	2346
UniProt:	Q04609
Application Details	
Application Notes:	Flow cytometry: Recommended dilution: 1-4 µg/mL.
Restrictions:	For Research Use only
Handling	
Concentration:	1 mg/mL
Buffer:	Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which

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	should be handled by trained staff only.
Handling Advice:	Do not freeze.
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.
Publications	
Product cited in:	Tykvart, Navrátil, Sedlák, Corey, Colombatti, Fracasso, Koukolík, Ba?inka, Sácha, Konvalinka: "
	Comparative analysis of monoclonal antibodies against prostate-specific membrane antigen
	(PSMA)." in: The Prostate, Vol. 74, Issue 16, pp. 1674-90, (2014) (PubMed).
	Sácha, Zámecník, Barinka, Hlouchová, Vícha, Mlcochová, Hilgert, Eckschlager, Konvalinka: "
	Expression of glutamate carboxypeptidase II in human brain." in: Neuroscience , Vol. 144, Issue
	4, pp. 1361-72, (2007) (PubMed).
	Barinka, Sácha, Sklenár, Man, Bezouska, Slusher, Konvalinka: "Identification of the N-
	glycosylation sites on glutamate carboxypeptidase II necessary for proteolytic activity." in:
	Protein science : a publication of the Protein Society, Vol. 13, Issue 6, pp. 1627-35, (2004) (
	PubMed).

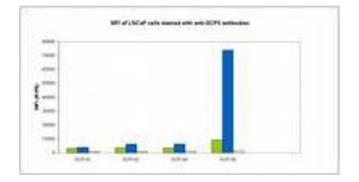
Images



Cytometry by Time of Flight

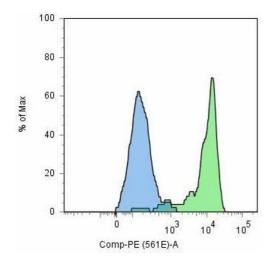
Image 1. Mass cytometry (surface staining) of LNCaP cell line using anti-GCPII (GCP-05) 173Yb. Gated on singlets.

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Flow Cytometry

Image 2. Flow cytometry analysis of GCPII (PSMA) by various monoclonal antibodies (GCP-01, GCP-02, GCP-04, GCP-05) on LNCaP cell line.Legend:green column - 1 ug/ml, LNCaP cell lineblue column - 5 ug/ml, LNCaP cell lineyellow column - negative cell line



Flow Cytometry

Image 3. Flow cytometry analysis (surface staining) of GCPII / PSMA using anti-GCPII (GCP-05) and goat antimouse-PE on LNCaP cell line (positive, green) and HeLa cells (negative, blue).

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