Datasheet for ABIN238408

anti-PSMA antibody (AA 44-750)

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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), Immunofluorescence (IF), Immunoprecipitation (IP)

Product Details

Immunogen:	Amino acids 44-750 of Human PSMA/GCPII
Clone:	GCP-05
Isotype:	IgG1
Specificity:	The antibody recognizes extracellular domain 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):	Species reactivity (tested):Human.
Characteristics:	Synonyms: Glutamate carboxypeptidase 2, Folate hydrolase 1, Prostate-specific membrane antigen,FOLH, NAALAD1, PSM, GCP2, NAALAdase, Glutamate carboxypeptidase II, Membraneglutamate carboxypeptidase, N-acetylated-alpha-linked acidic dipeptidase

Product Details

	I,Pteroylpoly-gamma-glutamate carboxypeptidase, Folylpoly-gamma-glutamatecarboxypeptidase
Purification:	Protein A Chromatography

Target Details

Target:	PSMA (FOLH1)
Alternative Name:	PSMA / FOLH1 (FOLH1 Products)
Background:	Glutamate Carboxypeptidase II (GCPII), also known as N-acetyl-a-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-g-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.Synonyms: FOLH, Folate hydrolase 1, Folylpoly-gamma-glutamate carboxypeptidase, GCP2, Glutamate carboxypeptidase 2, Glutamate carboxypeptidase II, Membrane glutamate carboxypeptidase, N-acetylated-alpha-linked acidic dipeptidase I, NAALAD1, NAALAdase, PSM, Prostate-specific membrane antigen, Pteroylpoly-gamma-glutamate carboxypeptidase
Gene ID:	2346
UniProt:	Q04609

Application Details

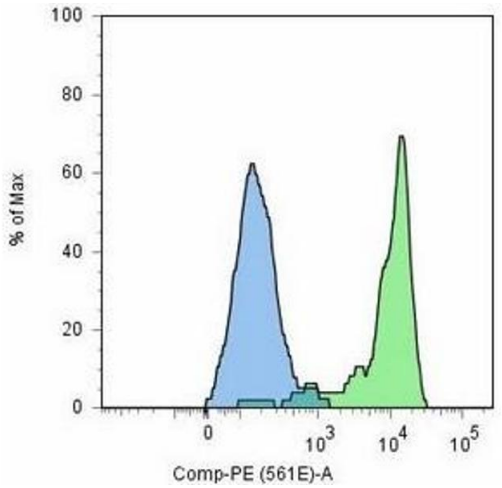
Application Notes:	Flow Cytometry. Immunoprecipitation. Immunocytochemistry. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Restrictions:	For Research Use only

Handling

Concentration:	1.0 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 should be handled by trained staff only.
Storage:	4 °C/-20 °C
Storage Comment:	Store the antibody undiluted at 2-8 °C for one month or (in aliquots) at -20 °C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
Expiry Date:	12 months

Publications

Product cited in:	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, Mlcochová, Sácha, Hilgert, Majer, Slusher, Horejsí, Konvalinka: "Amino acids at the N- and C-termini of human glutamate carboxypeptidase II are required for enzymatic activity and proper folding." in: **European journal of biochemistry / FEBS**, Vol. 271, Issue 13, pp. 2782-90, (2004) (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).



Flow Cytometry

Image 1.

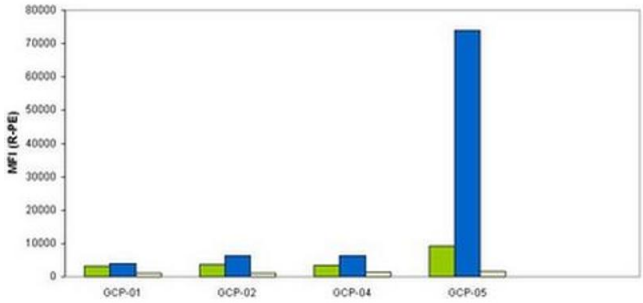


Image 2.