Datasheet for ABIN457366

anti-PSMA antibody (AA 44-750) (PE)

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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 conjugated to PE
Application:	Flow Cytometry (FACS)

Product Details

Immunogen:	amino acids 44-750 of human GCPII
Clone:	GCP-05
Isotype:	IgG1
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 antibody is conjugated with R-phycoerythrin (PE) under optimum conditions. Unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.

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: 5 µg/mL.
Comment:	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography.
Restrictions:	For Research Use only

Handling

Concentration:	0.1 mg/mL
Buffer:	Stabilizing 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.

Handling

Handling Advice:	**Do not freeze.** Avoid prolonged exposure to light.
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Protect from prolonged exposure to light. Do not freeze.

Publications

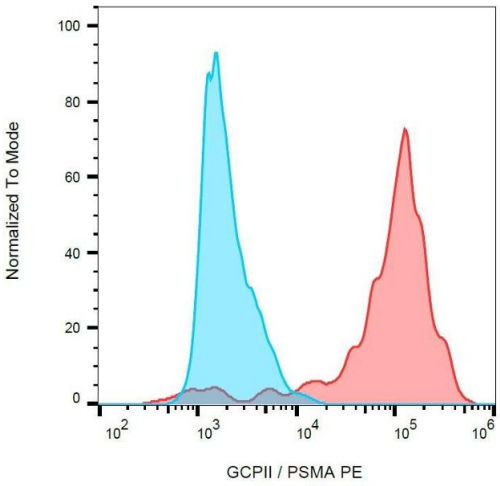
Product cited in:

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).

Barinka, Rinnová, Sácha, Rojas, Majer, Slusher, Konvalinka: "Substrate specificity, inhibition and enzymological analysis of recombinant human glutamate carboxypeptidase II." in: **Journal of neurochemistry**, Vol. 80, Issue 3, pp. 477-87, (2002) (PubMed).



Flow Cytometry

Image 1. Surface staining (flow cytometry) of GCPII / PSMA using anti-GCPII (GCP-05) PE on LNCaP cell line.