ARG53934
anti-GCPII / PSMA antibody [GCP-05]

Package: 100 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [GCP-05] recognizes GCPII / PSMA
Tested Reactivity	Hu
Tested Application	CyTOF®-candidate, FACS, ICC/IF, IP
Specificity	The clone GCP-05 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.
Host	Mouse
Clonality	Monoclonal
Clone	GCP-05
Isotype	IgG1
Target Name	GCPII / PSMA
Species	Human
Immunogen	amino acids 44-750 of human GCPII
Conjugation	Un-conjugated
Alternate Names	FOLH1; Folate Hydrolase 1; NAALAD1; GCPII; PSMA; PSM; Glutamate Carboxypeptidase 2; GCP2; FOLH; N-Acetylated-Alpha-Linked Acidic Dipeptidase I; Pteroylpoly-Gamma-Glutamate Carboxypeptidase; Folylpoly-Gamma-Glutamate Carboxypeptidase; Cell Growth-Inhibiting Gene 27 Protein; Membrane Glutamate Carboxypeptidase; Glutamate Carboxypeptidase II; Glutamate Carboxylase II; EC 3.4.17.21; NAALADase I; NAALAdase; FGCP; MGCP; Folate Hydrolase (Prostate-Specific Membrane Antigen) 1; N-Acetylated Alpha-Linked Acidic Dipeptidase 1; Prostate-Specific Membrane Antigen

Application Instructions

Application table

Application	Dilution
CyTOF®-candidate	Assay-dependent
FACS	1 - 4 µg/ml
ICC/IF	Assay-dependent
IP	Assay-dependent

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

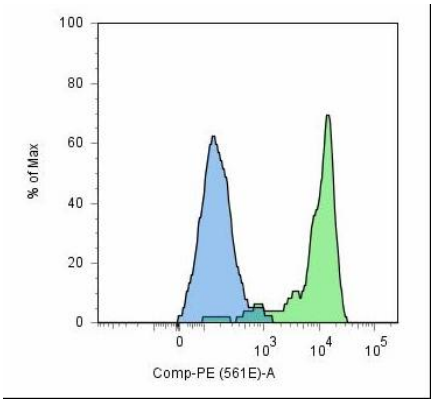
Form	Liquid
Purification	Purified from ascites by protein-A affinity chromatography.
Purity	> 95% (by SDS-PAGE)

Buffer	PBS (pH 7.4) and 15 mM Sodium azide
Preservative	15 mM Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

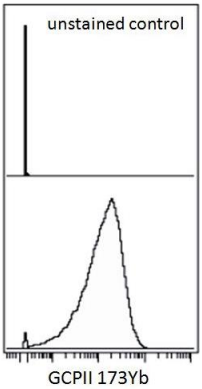
Database links	GeneID: 2346 Human Swiss-port # Q04609 Human
Gene Symbol	FOLH1
Gene Full Name	folate hydrolase (prostate-specific membrane antigen) 1
Background	This gene encodes a type II transmembrane glycoprotein belonging to the M28 peptidase family. The protein acts as a glutamate carboxypeptidase on different alternative substrates, including the nutrient folate and the neuropeptide N-acetyl-l-aspartyl-l-glutamate and is expressed in a number of tissues such as prostate, central and peripheral nervous system and kidney. A mutation in this gene may be associated with impaired intestinal absorption of dietary folates, resulting in low blood folate levels and consequent hyperhomocysteinemia. Expression of this protein in the brain may be involved in a number of pathological conditions associated with glutamate excitotoxicity. In the prostate the protein is up-regulated in cancerous cells and is used as an effective diagnostic and prognostic indicator of prostate cancer. This gene likely arose from a duplication event of a nearby chromosomal region. Alternative splicing gives rise to multiple transcript variants encoding several different isoforms.
Function	Has both folate hydrolase and N-acetylated-alpha-linked-acidic dipeptidase (NAALADase) activity. Has a preference for tri-alpha-glutamate peptides. In the intestine, required for the uptake of folate. In the brain, modulates excitatory neurotransmission through the hydrolysis of the neuropeptide, N-aceylaspartylglutamate (NAAG), thereby releasing glutamate. Involved in prostate tumor progression.
Research Area	Cancer antibody; Metabolism antibody; Signaling Transduction antibody
Calculated Mw	84 kDa
PTM	Glycoprotein, Phosphoprotein
Cellular Localization	Cell membrane, Cytoplasm, Membrane

Images



ARG53934 anti-GCPII / PSMA antibody [GCP-05] FACS image

Flow Cytometry: LNCaP cells stained with ARG53934 anti-GCPII / PSMA antibody [GCP-05], followed by incubation with PE-labelled secondary antibody.



ARG53934 anti-GCPII / PSMA antibody [GCP-05] CyTOF image

CyTOF: LNCaP cells were stained with ARG53934 anti-GCPII / PSMA antibody [GCP-05] (173Yb). Singlet cells were gated for data analysis.