

Prostate Specific Membrane Antigen (PSMA) (ABT-PSMA) IHC kit

CatalogNo: IHCM6214

Key Features

Host Species

- Mouse

Reactivity

- Human, Mouse, Rat,

Applications

- IHC

Isotype

- IgG1, Kappa

Recommended Dilution Ratios

Storage

Storage* 2°C to 8°C/1 year

Basic Information

Clonality Monoclonal

Clone Number ABT-PSMA

Immunogen Information

Immunogen Synthesized peptide derived from human Prostate-Specific Membrane Antigen (PSMA) AA range: 100-200

Specificity The antibody can specifically recognize human PSMA protein.

Target Information

Gene name FOLH1 FOLH NAALAD1 PSM PSMA GIG27

Protein Name Glutamate carboxypeptidase 2 (Cell growth-inhibiting gene 27 protein) (Folate hydrolase 1) (Folylpoly-gamma-glutamate carboxypeptidase) (FGCP) (Glutamate carboxypeptidase II) (GCPII) (Membrane glutamate carboxypeptidase) (mGCP) (N-acetylated-alpha-linked acidic dipeptidase I) (NAALADase I) (Prostate-specific membrane antigen) (PSM) (PSMA) (Pteroylpoly-gamma-glutamate carboxypeptidase)

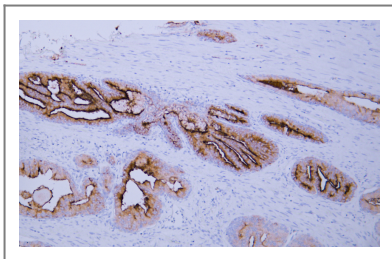
Organism	Gene ID	UniProt ID
Human	2346;	Q04609;

Cellular Localization Cytoplasmic, Membranous

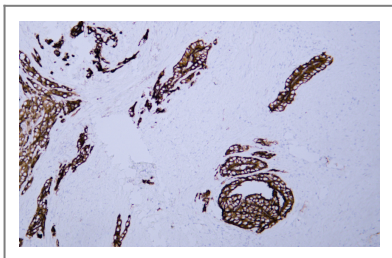
Tissue specificity Highly expressed in prostate epithelium. Detected in urinary bladder, kidney, testis, ovary, fallopian tube, breast, adrenal gland, liver, esophagus, stomach, small intestine, colon and brain (at protein level). Detected in the small intestine, brain, kidney, liver, spleen, colon, trachea, spinal cord and the capillary endothelium of a variety of tumors. Expressed specifically in jejunum brush border membranes. In the brain, highly expressed in the ventral striatum and brain stem. Also expressed in fetal liver and kidney. Isoform PSMA' is the most abundant form in normal prostate. Isoform PSMA-1 is the most abundant form in primary prostate tumors. Isoform PSMA-3 is also found in normal prostate as well as in brain and liver. Isoform PSMA-9 is specifically expressed in prostate cancer.

Function Alternative products:Experimental confirmation may be lacking for some isoforms,Catalytic activity:Release of an unsubstituted, C-terminal glutamyl residue, typically from Ac-Asp-Glu or folylpoly-gamma-glutamates.,cofactor:Binds 2 zinc ions per subunit. Required for NAALADase activity.,Domain:The NAALADase activity is found in the central region, the dipeptidyl peptidase IV type activity in the C-terminal.,enzyme regulation:The NAALADase activity is inhibited by beta-NAAG, quisqualic acid, 2-(phosphonomethyl) pentanedioic acid (PMPA) and EDTA. Activated by cobalt.,Function:Also exhibits a dipeptidyl-peptidase IV type activity. In vitro, cleaves Gly-Pro-AMC.,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. Isoforms PSM-4 and PSM-5 would appear to be physiologically irrelevant. Involved in prostate tumor progression.,induction:In the prostate, up-regulated in response to androgen deprivation.,miscellaneous:PSMA is used as a diagnostic and prognostic indicator of prostate cancer, and as a possible marker for various neurological disorders such as schizophrenia, Alzheimer disease and Huntington disease.,polymorphism:Genetic variation in FOLH1 may be associated with low folate levels and consequent hyperhomocysteinemia. This condition can result in increased risk of cardiovascular disease, neural tube defects, and cognitive deficits.,PTM:The first two amino acids at the N-terminus of isoform PSMA' appear to be cleaved by limited proteolysis.,PTM:The N-terminus is blocked.,similarity:Belongs to the peptidase M28 family. M28B subfamily.,tissue specificity:Highly expressed in prostate epithelium. Also expressed, in the small intestine, brain, kidney, liver, spleen, colon, trachea, spinal cord and the capillary endothelium of a variety of tumors. Expressed specifically in jejunum brush border membranes. In the brain, highly expressed in the ventral striatum and brain stem. Also expressed in fetal liver and kidney. In the prostate, the PSMA' cytosolic isoform is the most abundant form in normal tissue, the membrane-bound PSMA-1 form in primary prostate tumors. The PSMA-2 isoform also found in normal prostate as well as in brain and liver.,

Validation Data



Human prostate tissue was stained with Anti-Prostate-Specific Membrane Antigen (ABT-PSMA) Antibody



Human prostatic adenocarcinoma tissue was stained with Anti-Prostate-Specific Membrane Antigen (ABT-PSMA) Antibody

| Contact information

Orders: order@immunoway.com
Support: tech@immunoway.com
Telephone: 408-747-0189 (USA) 400-8787-807(China)
Website: <http://www.immunoway.com>
Address: 2200 Ringwood Ave San Jose, CA 95131 USA



Please scan the QR code to access additional product information:
Prostate Specific Membrane Antigen (PSMA) (ABT-PSMA) IHC kit

For Research Use Only. Not for Use in Diagnostic Procedures.

[Antibody](#) | [ELISA Kits](#) | [Protein](#) | [Reagents](#)