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FOLH1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13707A

Product Information

Application	IHC-P, IF, WB, E
Primary Accession	Q04609
Other Accession	Q9CZR2, Q9Y3Q0, P70627, O77564, O35409, NP_001180400.1, NP_001014986.1
Reactivity	Human
Predicted	Mouse, Pig, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB33647
Calculated MW	84331
Antigen Region	161-190

Additional Information

Gene ID	2346
Other Names	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, FOLH1, FOLH, NAALAD1, PSM, PSMA
Target/Specificity	This FOLH1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 161-190 amino acids from the N-terminal region of human FOLH1.
Dilution	IHC-P~~1:100~500 IF~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	FOLH1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	FOLH1 (HGNC:3788)
Synonyms	FOLH, NAALAD1, PSM, PSMA
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.
Cellular Location	Cell membrane; Single-pass type II membrane protein
Tissue Location	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-9 is specifically expressed in prostate cancer

Background

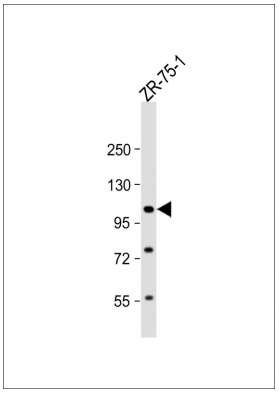
This gene encodes a type II transmembrane glycoprotein belonging to the M28 peptidase family. The protein acts as a glutamate carboxypeptidase on different alternative substrates, including the nutrient folate and the neuropeptide N-acetyl-l-aspartyl-l-glutamate and is expressed in a number of tissues 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.

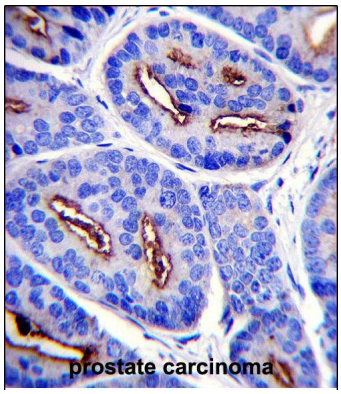
References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Giusti, B., et al. Thromb. Haemost. 104(2):231-242(2010)
Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :
Mlcochova, P., et al. Prostate 69(5):471-479(2009)
Davis, M.I., et al. Proc. Natl. Acad. Sci. U.S.A. 102(17):5981-5986(2005)

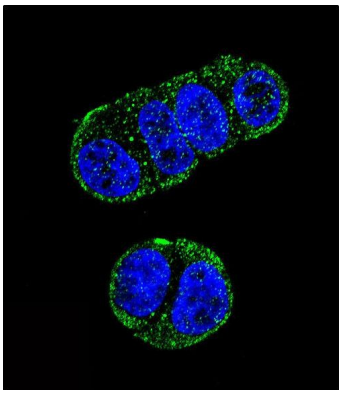
Images

Anti-FOLH1 Antibody (N-term) at 1:1000 dilution + ZR-75-1 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 84 kDa Blocking/Dilution buffer: 5% NFDM/TBST.





FOLH1 Antibody (N-term) (Cat. #AP13707a)immunohistochemistry analysis in formalin fixed and paraffin embedded human prostate carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of FOLH1 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.



Confocal immunofluorescent analysis of FOLH1 Antibody (N-term)(Cat#AP13707a) with ZR-75-1 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green).DAPI was used to stain the cell nuclear (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.