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LNPEP Antibody (N-Term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10272a

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q9UIQ6
Other Accession	P97629, Q8C129, NP_005566.2, NP_787116.2
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB27638
Calculated MW	117349
Antigen Region	23-52

Additional Information

Gene ID	4012
Other Names	Leucyl-cystinyl aminopeptidase, Cystinyl aminopeptidase, Insulin-regulated membrane aminopeptidase, Insulin-responsive aminopeptidase, IRAP, Oxytocinase, OTase, Placental leucine aminopeptidase, P-LAP, Leucyl-cystinyl aminopeptidase, pregnancy serum form, LNPEP, OTASE
Target/Specificity	This LNPEP antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 23-52 amino acids from the N-terminal region of human LNPEP.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 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	LNPEP Antibody (N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	LNPEP

Synonyms	OTASE
Function	Release of an N-terminal amino acid, cleaves before cysteine, leucine as well as other amino acids. Degrades peptide hormones such as oxytocin, vasopressin and angiotensin III, and plays a role in maintaining homeostasis during pregnancy. May be involved in the inactivation of neuronal peptides in the brain. Cleaves Met-enkephalin and dynorphin. Binds angiotensin IV and may be the angiotensin IV receptor in the brain.
Cellular Location	Cell membrane; Single-pass type II membrane protein Note=In brain only the membrane-bound form is found. The protein resides in intracellular vesicles together with GLUT4 and can then translocate to the cell surface in response to insulin and/or oxytocin Localization may be determined by dileucine internalization motifs, and/or by interaction with tankyrases
Tissue Location	Highly expressed in placenta, heart, kidney and small intestine. Detected at lower levels in neuronal cells in the brain, in skeletal muscle, spleen, liver, testes and colon

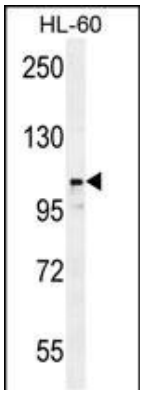
Background

This gene encodes a zinc-dependent aminopeptidase that cleaves vasopressin, oxytocin, lys-bradykinin, met-enkephalin, dynorphin A and other peptide hormones. The protein can be secreted in maternal serum, reside in intracellular vesicles with the insulin-responsive glucose transporter GLUT4, or form a type II integral membrane glycoprotein. The protein catalyzes the final step in the conversion of angiotensinogen to angiotensin IV (AT4) and is also a receptor for AT4. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq].

References

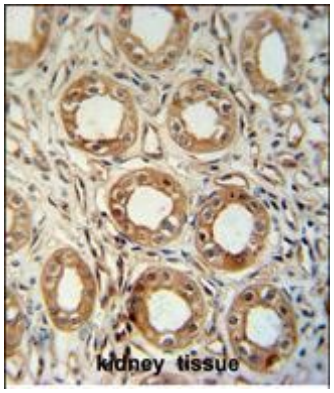
Georgiadou, D., et al. J. Immunol. 185(3):1584-1592(2010)
Williams, P.J., et al. Placenta 31(5):448-455(2010)
Landau, R., et al. Neuro Endocrinol. Lett. 31(1):63-66(2010)
Johnson, M.P., et al. Hum. Genet. 126(5):655-666(2009)
Saveanu, L., et al. Science 325(5937):213-217(2009)

Images

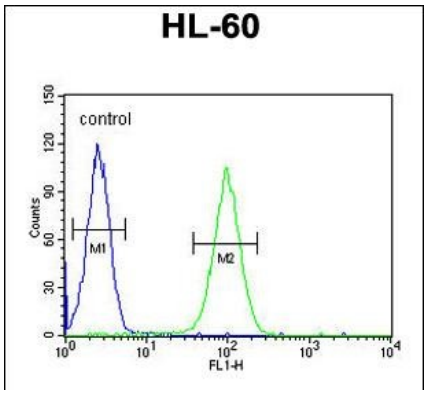


LNPEP Antibody (N-Term) (Cat. #AP10272a) western blot analysis in HL-60 cell line lysates (35ug/lane).This demonstrates the LNPEP antibody detected the LNPEP protein (arrow).

LNPEP antibody (N-Term) (Cat. #AP10272a) immunohistochemistry analysis in formalin fixed and paraffin embedded human kidney tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the



LNPEP antibody (N-Term) for immunohistochemistry. Clinical relevance has not been evaluated.



LNPEP Antibody (N-Term) (Cat. #AP10272a) flow cytometric analysis of HL-60 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

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