10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PRCP Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13385a

Product Information

Application	WB, IHC-P, E
Primary Accession	P42785
Other Accession	NP_005031.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB32742
Calculated MW	55800
Antigen Region	114-143

Additional Information

Gene ID	5547
Other Names	Lysosomal Pro-X carboxypeptidase, Angiotensinase C, Lysosomal carboxypeptidase C, Proline carboxypeptidase, Prolylcarboxypeptidase, PRCP, PRCP, PCP
Target/Specificity	This PRCP antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 114-143 amino acids from the N-terminal region of human PRCP.
Dilution	WB~~1:1000 IHC-P~~1:100~500 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	PRCP Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PRCP
Synonyms	PCP

Function	Cleaves C-terminal amino acids linked to proline in peptides such as angiotensin II, III and des-Arg9-bradykinin. This cleavage occurs at acidic pH, but enzymatic activity is retained with some substrates at neutral pH.
Cellular Location	Lysosome.
Tissue Location	Highest levels in placenta, lung and liver. Also present in heart, brain, pancreas and kidney

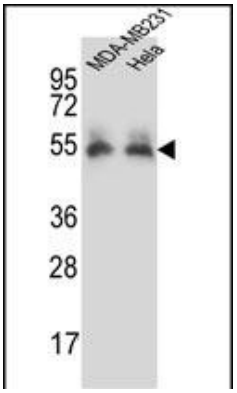
Background

The protein encoded by this gene is a lysosomal prolylcarboxypeptidase, which cleaves C-terminal amino acids linked to proline in peptides such as angiotension II, III and des-Arg9-bradykinin. The cleavage occurs at acidic pH, but the enzyme activity is retained with some substrates at neutral pH. This enzyme has been shown to be an activator of the cell matrix-associated prekallikrein. The importance of angiotension II, one of the substrates of this enzyme, in regulating blood pressure and electrolyte balance suggests that this gene may be related to essential hypertension. Alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq].

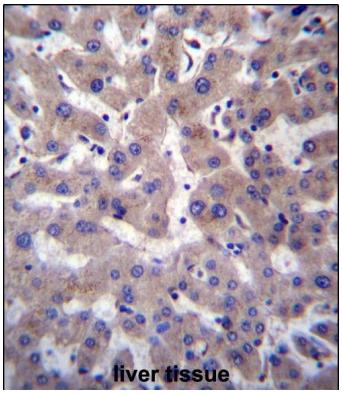
References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Zhao, X., et al. Proteomics 10(15):2882-2886(2010)
Abeywickrema, P.D., et al. Acta Crystallogr. Sect. F Struct. Biol. Cryst. Commun. 66 (PT 6), 702-705 (2010) :
Soisson, S.M., et al. BMC Struct. Biol. 10, 16 (2010) :
Zhang, Y., et al. Chin. Med. J. 122(20):2461-2465(2009)

Images



PRCP Antibody (N-term) (Cat. #AP13385a) western blot analysis in MDA-MB231,Hela cell line lysates (35ug/lane).This demonstrates the PRCP antibody detected the PRCP protein (arrow).



PRCP Antibody (N-term) (Cat. #AP13385a)immunohistochemistry analysis in formalin fixed and paraffin embedded human liver tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of PRCP Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.