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Product datasheet for DM3611P

Xpnpep1 Mouse Monoclonal Antibody [Clone ID: JG12C9C10]

Product data:

Product Type:	Primary Antibodies
Clone Name:	JG12C9C10
Applications:	IF, IHC
Recommended Dilution:	**Immunohistochemistry on Frozen and Paraffin Sections.**
Reactivity:	Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Membrane protein fraction of solated Rat glomeruli
Specificity:	This antibody recognizes Rat Aminopeptidase P. Other species not tested.
Formulation:	PBS pH 6.0 State: Purified State: Lyophilized purified IgG fraction from Cell Culture Supernatant Stabilizer: None
Reconstitution Method:	Restore in sterile water to a concentration of 0.1-1.0 mg/ml. Centrifuge vial prior to opening.
Purification:	Protein G Chromatography
Conjugation:	Unconjugated
Storage:	Store lyophilized at 2-8°C for 6 months or at -20°C long term. After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	X-prolyl aminopeptidase (aminopeptidase P) 1, soluble
Database Link:	Entrez Gene 170751 Rat O54975

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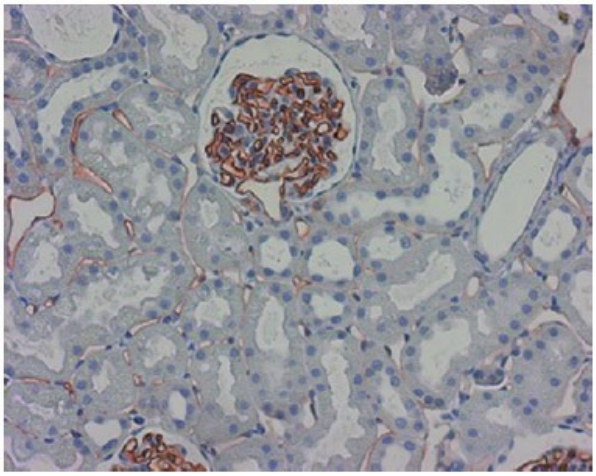
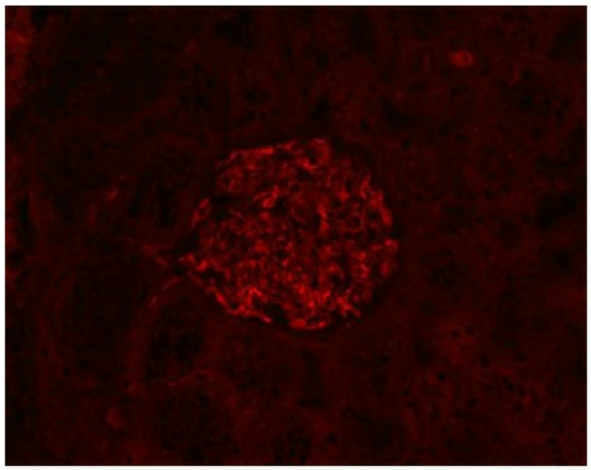
Background: Aminopeptidase P (AP-P; X-Pro aminopeptidase) has the unique ability to leave the N-terminal amino acid residue from peptides having proline as the penultimate amino acid residue. Biologically active peptides comprise an important and diverse class of extracellular chemical messengers that mediate a wide range of intercellular interactions. Several bioactive peptides including hormones, neuropeptides, neurotransmitters escape non-specific protease degradation by having an Xaa-Pro motif at their amino termini. Due to its cyclic nature, proline confers resistance to such peptide bonds so that aminopeptidases with broad specificity cannot act upon such peptides. There are a limited number of peptidases that act on peptide bonds involving a proline residue, such as dipeptidyl peptidase II (DPPII) and dipeptidyl peptidase W (DPPIV), and prolidase (which cleaves the Xaa-Pro bond only in dipeptides), or endopeptidases such as prolyl endopeptidase (which cleaves on the carbonyl side of proline residues within a protein or peptide). However, none of these enzymes have been reported to hydrolyze Xaa-Pro bonds located at the N-terminus of peptides and proteins. Therefore, role of AP-P is crucial in this respect. AP-P activity is ubiquitous and has been found in a wide range of organisms including bacteria, yeast and vertebrates. Mammalian AP-Ps exist in membrane-bound and cytosolic forms, which represent two distinct gene products. The cytosolic (soluble) form of aminopeptidase P is found in human leukocytes and rat brain.

Synonyms: XPNPEPL, XPNPEPL1

Product images:



Staining of Aminopeptidase P in the tubulointerstitial blood vessels and in particular the blood vessels of the glomerulus (paraffin-embedded tissue-sections fixed in formalin) with anti-Rat Aminopeptidase-P



Immunofluorescence staining of endothelial cells of the glomerulus as well as the tubulointerstitial blood vessels (here very weak) (paraffinembedded tissue-sections fixed in formalin) with anti-Rat Aminopeptidase-P