

Mouse Anti-rat Aminopeptidase P (Cat# 104-M01, 100ug)

Aminopeptidases, widely distributed in prokaryotes and eukaryotes, catalyze the removal of amino acids from the N-termini of proteins. Aminopeptidase P is a member of the peptidase clan MG. This metal-dependant enzyme plays an important role in the catabolism of kinins in human plasma. It exists in two forms: a membrane-bound form and a cytosolic form. Aminopeptidase P is Proline-specific. It releases N-terminal amino acids from peptides where the second residue is Proline, such as bradykinin, substance P, beta-Casomorphin, and peptides of the pancreatic polypeptide family.

Aminopeptidase P is GPI-linked, and the membrane-bound form is expressed on the surface of lymphoid cells, on vascular endothelial cells in various tissues, and on the brush-border membrane in kidney tubules and in the intestine. Cytosolic Aminopeptidase P is 623 amino acids in length and membrane-bound Aminopeptidase P is 674 amino acids in length.

Experiments have shown that Aminopeptidase P is also the receptor for the breast-homing peptide, and therefore it may be useful in designing drugs for the prevention and treatment of breast cancer.

Matsui et al., J Am Soc Nephrol.,2003; Cottrell, et al., Biochemistry 39, 2000; Essler et al. 2002, Proc. Natl. Acad. Sci. USA 99,2002; Arima et al., Protein Eng. Des.& Sel., 2008; Cottrell et al., Biochemistry 39, 2000

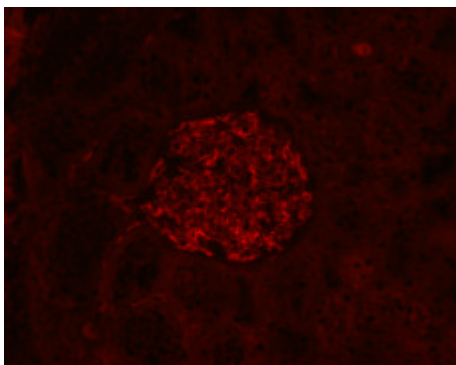


Fig. 1: Glomerular endothelial cells stained with anti-rat Aminopeptidase P.

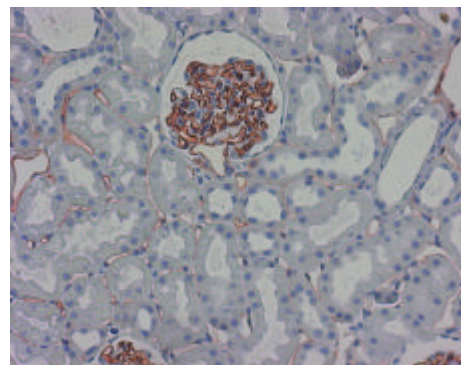


Fig. 2: Immunohistochemistry for Aminopeptidase P.

STAINING PROTOCOL for paraffin-embedded tissue-sections fixed in formalin

Anti-rat Aminopeptidase P (#JG12C9C10)

Ultra Vision LP Large Volume Detection System HRP Polymer (Ready-To-Use)
Thermo scientific Nr. TL-125-HL

1. Deparaffinize through xylenes, ethanol, and hydrate to water.
2. Heat-Pre-treatment: in 0,1mol citrate buffer pH 6 in an Autoclave at 1 bar for 10 min
3. Cool down at room temperature for 20 min
4. Block in 3% hydrogen peroxide in PBS 10 min
5. Wash in buffer
6. Apply Ultra V Block and incubate 5 min at room temperature
7. Wash
8. Apply Primary Antibody: **LF3 (B7)D5B3** at a dilution 1:1000 in 1%BSA/PBS for 1 hour
9. Wash 4 times
10. Apply Primary Antibody Enhancer and incubate for 10 min at room temperature
11. Wash 4 times
12. Apply HRP Polymer and incubate for 15 min at room temperature in the dark(HRP Polymer is light sensitive)
13. Wash 4 times
14. Incubate with ACE-Chromogen and stain for 5-10 min
15. Wash 4 times in AD
16. Counter stain with Mayer's Hämalaun for 1 min
17. Cover slip using an aqueous mounting media

The protocol was established at the Clinical Institute of Pathology, Medical University Vienna in the group of
Prof. Dr. Dentscho Kerjaschki.