

**Anti-CD10/Neprilysin Antibody**  
**Catalog # ABO11776****Specification**

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**Anti-CD10/Neprilysin Antibody - Product Information**

Application	IHC
Primary Accession	<a href="#">P08473</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Neprilysin(MME) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-CD10/Neprilysin Antibody - Additional Information**

**Gene ID** 4311

**Other Names**

Neprilysin, 3.4.24.11, Atriopeptidase, Common acute lymphocytic leukemia antigen, CALLA, Enkephalinase, Neutral endopeptidase 24.11, NEP, Neutral endopeptidase, Skin fibroblast elastase, SFE, CD10, MME, EPN

**Calculated MW**

85514 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat  
Western blot, 0.1-0.5 µg/ml, Human, Rat

**Subcellular Localization**

Cell membrane; Single-pass type II membrane protein.

**Protein Name**

Neprilysin

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>.

**Immunogen**

E.coli-derived human CD10 recombinant protein (Position: Y52-W750). Human CD10 shares 94% amino acid (aa) sequences identity with both mouse and rat CD10.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

**Sequence Similarities**

Belongs to the peptidase M13 family.

**Anti-CD10/Neprilysin Antibody - Protein Information**

**Name** MME {ECO:0000303|PubMed:27588448, ECO:0000312|HGNC:HGNC:7154}

**Function**

Thermolysin-like specificity, but is almost confined on acting on polypeptides of up to 30 amino acids (PubMed: <a href="http://www.uniprot.org/citations/15283675" target="\_blank">15283675</a>, PubMed: <a href="http://www.uniprot.org/citations/6208535" target="\_blank">6208535</a>, PubMed: <a href="http://www.uniprot.org/citations/6349683" target="\_blank">6349683</a>, PubMed: <a href="http://www.uniprot.org/citations/8168535" target="\_blank">8168535</a>). Biologically important in the destruction of opioid peptides such as Met- and Leu-enkephalins by cleavage of a Gly-Phe bond (PubMed: <a href="http://www.uniprot.org/citations/17101991" target="\_blank">17101991</a>, PubMed: <a href="http://www.uniprot.org/citations/6349683" target="\_blank">6349683</a>). Catalyzes cleavage of bradykinin, substance P and neurotensin peptides (PubMed: <a href="http://www.uniprot.org/citations/6208535" target="\_blank">6208535</a>). Able to cleave angiotensin-1, angiotensin-2 and angiotensin 1-9 (PubMed: <a href="http://www.uniprot.org/citations/15283675" target="\_blank">15283675</a>, PubMed: <a href="http://www.uniprot.org/citations/6349683" target="\_blank">6349683</a>). Involved in the degradation of atrial natriuretic factor (ANF) and brain natriuretic factor (BNP(1-32)) (PubMed: <a href="http://www.uniprot.org/citations/16254193" target="\_blank">16254193</a>, PubMed: <a href="http://www.uniprot.org/citations/2531377" target="\_blank">2531377</a>, PubMed: <a href="http://www.uniprot.org/citations/2972276" target="\_blank">2972276</a>). Displays UV-inducible elastase activity toward skin preelastic and elastic fibers (PubMed: <a href="http://www.uniprot.org/citations/20876573" target="\_blank">20876573</a>).

**Cellular Location**

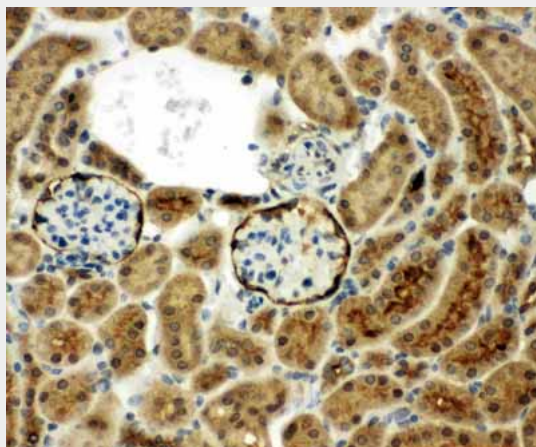
Cell membrane; Single-pass type II membrane protein

**Anti-CD10/Neprilysin Antibody - Protocols**

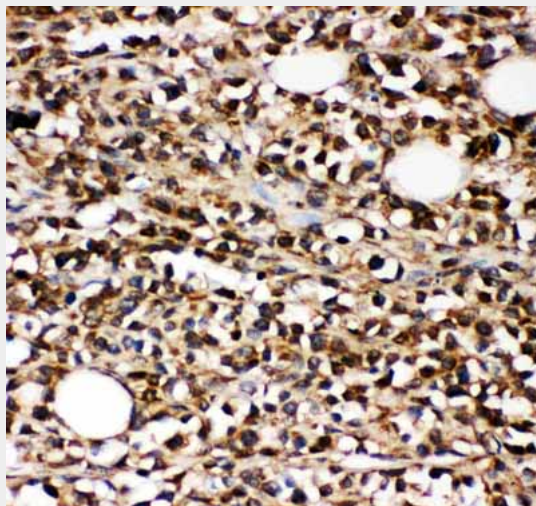
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

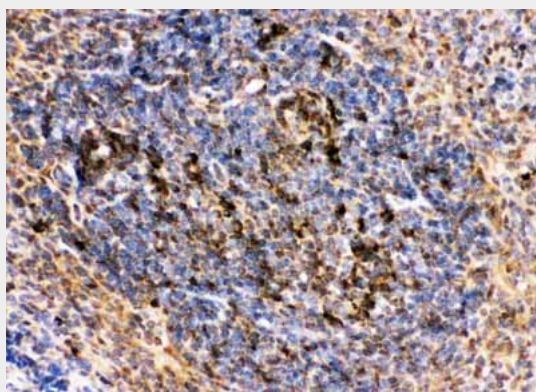
**Anti-CD10/Neprilysin Antibody - Images**



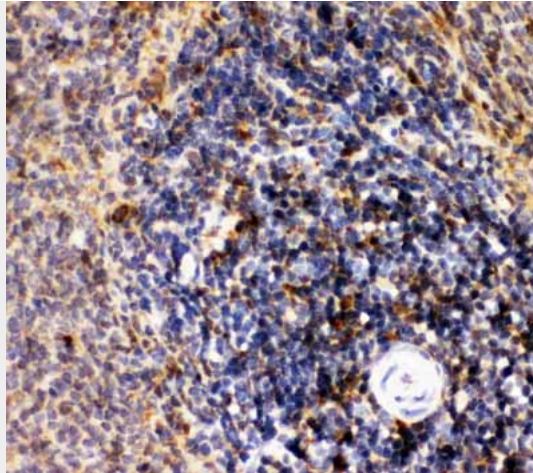
Anti-CD10 Picoband antibody, ABO11776-1.JPGIHC(P): Mouse Kidney Tissue



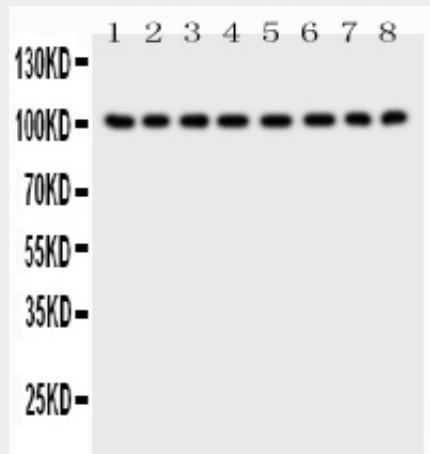
Anti-CD10 Picoband antibody, ABO11776-2.JPGIHC(P): Human B lymphocyte Cancer Tissue



Anti-CD10 Picoband antibody, ABO11776-3.JPGIHC(P): Mouse Spleen Tissue



Anti-CD10 Picoband antibody, ABO11776-4.JPGIHC(P): Rat Spleen Tissue



Anti-CD10 Picoband antibody, ABO11776-5.jpgAll lanes: Anti-CD10(ABO11776) at 0.5ug/mlLane 1: Rat Kidney Tissue Lysate at 40ugLane 2: Rat Brain Tissue Lysate at 40ugLane 3: Rat Liver Tissue Lysate at 40ugLane 4: Human Placenta Tissue Lysate at 40ugLane 5: HELA Whole Cell Lysate at 40ugLane 6: JURKAT Whole Cell Lysate at 40ugLane 7: RAJI Whole Cell Lysate at 40ugLane 8: 293T Whole Cell Lysate at 40ugPredicted bind size: 86KD Observed bind size: 100KD

#### Anti-CD10/Neprilysin Antibody - Background

CD10, also known as membrane metallo-endopeptidase, neutral endopeptidase (NEP), Neprilysin, or common acute lymphoblastic leukemia antigen (CALLA), is a zinc-dependent metalloprotease enzyme that degrades a number of small secreted peptides, most notably the amyloid beta peptide whose abnormal misfolding and aggregation in neural tissue has been implicated as a cause of Alzheimer's disease. This gene is localized to human chromosome 3 by study of somatic cell hybrids and regionalized the location to 3q21-q27 by in situ hybridization. By cDNA transfection analysis, CD10 is confirmed as a functional neutral endopeptidase of the type that has previously been called enkephalinase. CD10 has also been called atriopeptidase. Atriopeptidase specifically degrades atrial natriuretic factor. A specific enzyme inhibitor was developed and reported that it had effects similar to those of low-dose ANF infusion. These effects include diuresis, natriuresis, vasodilatation, and suppression of the renin-angiotensin-aldosterone system.