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

Anti-CD10/Neprilysin Antibody
Catalog # ABO11776

Specification

Anti-CD10/Neprilysin Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	P08473
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 Na2HPO4, 0.05mg NaN3.

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 r˚Constitution, 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:15283675, PubMed:6208535, PubMed:6349683, PubMed:8168535). Biologically important in the destruction of opioid peptides such as Met- and Leu-enkephalins by cleavage of a Gly-Phe bond (PubMed:17101991, PubMed:6349683). Catalyzes cleavage of bradykinin, substance P and neurotensin peptides (PubMed:6208535). Able to cleave angiotensin-1, angiotensin-2 and angiotensin 1-9 (PubMed:15283675, PubMed:6349683). Involved in the degradation of atrial natriuretic factor (ANF) and brain natriuretic factor (BNP(1-32)) (PubMed:16254193, PubMed:2531377, PubMed:2972276). Displays UV-inducible elastase activity toward skin preelastic and elastic fibers (PubMed:20876573).

Cellular Location
Cell membrane; Single-pass type II membrane protein

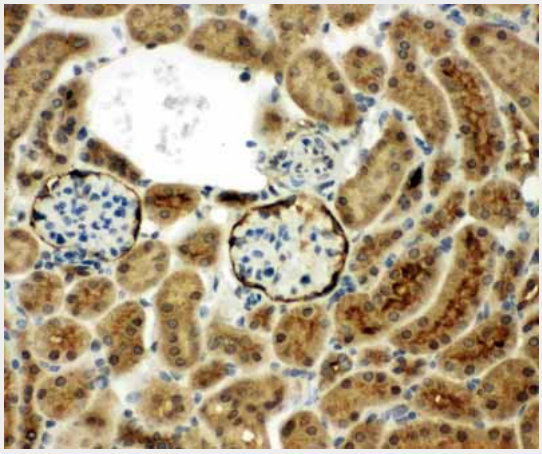
Anti-CD10/Neprilysin Antibody - Protocols

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

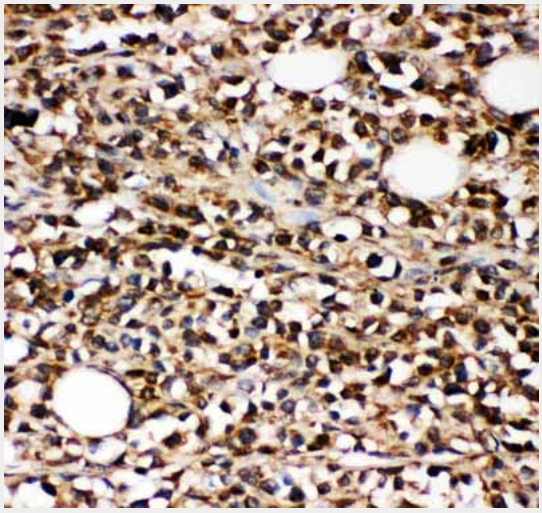
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-CD10/Neprilysin Antibody - Images

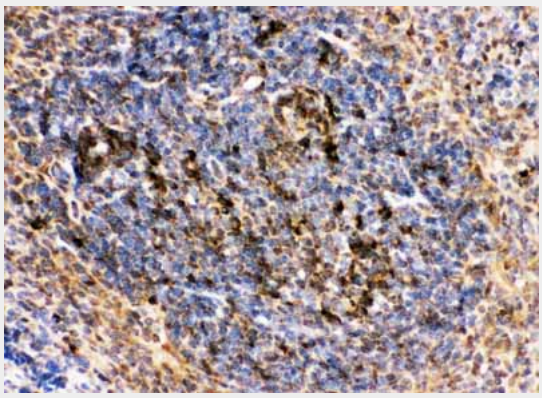
10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



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

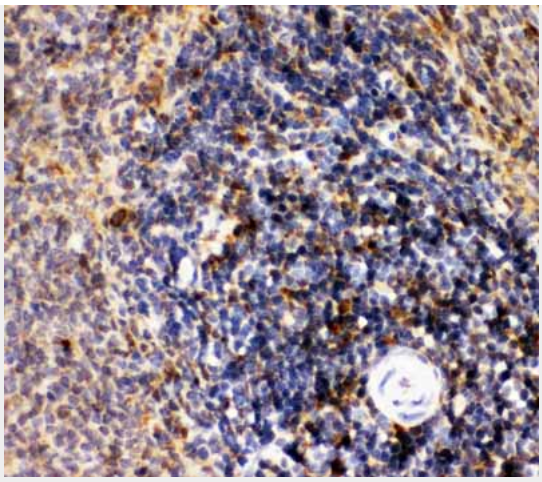


Anti-CD10 Picoband antibody, ABO11776-2.JPGIHC(P): Human B lymphocyte Cancer Tissue

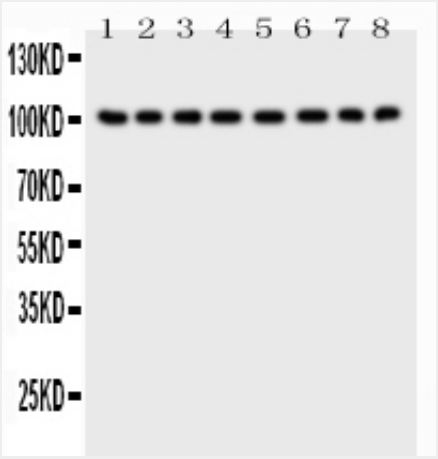


Anti-CD10 Picoband antibody, ABO11776-3.JPGIHC(P): Mouse Spleen Tissue

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



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 theamyloid 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.