# Neprilysin Antibody (C-Term) Blocking Peptide

## PRODUCT OVERVIEW

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| **Product Name** | Neprilysin (MME), Blocking Peptide |
| **Full Product Name** | Neprilysin Antibody (C-term) Blocking Peptide |
| **Product Gene Name** | MME blocking peptide |
| **Product Synonym Gene Name** | EPN |
| **Product Synonym Names** | Neprilysin; Atriopeptidase; Common acute lymphocytic leukemia antigen; CALLA; Enkephalinase; Neutral endopeptidase 2411; NEP; Neutral endopeptidase; Skin fibroblast elastase; SFE; CD10; MME; EPN |
| **Form/Format** | Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 1 mg/ml. |
| **Specificity** | The synthetic peptide sequence used to generate the antibody was selected from the C-term region of human Neprilysin. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay. |
| **Preparation and Storage** | Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C. |
| **Antibody/Peptide Pairs** | Neprilysin peptide (MBS9226796) is used for blocking the activity of Neprilysin antibody (MBS9208256) |
| **Molecular Weight** | 85,514 Da |
| **OMIM** | 120520 |
| **Cellular Location** | Cell membrane; Single-pass type II membrane protein |
| **Related Product Information for MME blocking peptide** | Thermolysin-like specificity, but is almost confined on acting on polypeptides of up to 30 amino acids (PubMed:15283675, 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). Able to cleave angiotensin-1, angiotensin-2 and angiotensin 1-9 (PubMed:15283675). Involved in the degradation of atrial natriuretic factor (ANF) (PubMed:2531377, PubMed:2972276). Displays UV-inducible elastase activity toward skin preelastic and elastic fibers (PubMed:20876573). |
| **Other Notes** | Small volumes of MME blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |
| **Searchable Terms for MME purchase** | MBS9226796 is a blocking peptide targeting MME. Also known as Neprilysin Antibody (C-term) Blocking Peptide. |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MME. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 128062 |
| **NCBI GeneID** | 4311 |
| **NCBI Accession #** | P08473.2 |
| **UniProt Primary Accession #** | P08473 |
| **UniProt Secondary Accession #** | Q3MIX4; A8K6U6; D3DNJ9 |
| **UniProt Related Accession #** | P08473 |
| **NCBI Official Full Name** | Neprilysin |
| **NCBI Official Synonym Full Names** | membrane metallo-endopeptidase |

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| **NCBI Official Symbol** | MME |
| **NCBI Official Synonym Symbols** | NEP; SFE; CD10; CALLA; CMT2T |
| **UniProt Protein Name** | Neprilysin |
| **UniProt Synonym Protein Names** | Atriopeptidase; Common acute lymphocytic leukemia antigen; CALLA; Enkephalinase; Neutral endopeptidase 24.11; NEP; Neutral endopeptidase; Skin fibroblast elastase; SFE; CD_antigen: CD10 |
| **Protein Family** | Neprilysin |
| **UniProt Gene Name** | MME |
| **UniProt Synonym Gene Names** | EPN; CALLA; NEP; Neutral endopeptidase; SFE |
| **UniProt Entry Name** | NEP_HUMAN |
| **NCBI Protein Information** | neprilysin |
| **NCBI Summary for MME** | This gene encodes a common acute lymphocytic leukemia antigen that is an important cell surface marker in the diagnosis of human acute lymphocytic leukemia (ALL). This protein is present on leukemic cells of pre-B phenotype, which represent 85% of cases of ALL. This protein is not restricted to leukemic cells, however, and is found on a variety of normal tissues. It is a glycoprotein that is particularly abundant in kidney, where it is present on the brush border of proximal tubules and on glomerular epithelium. The protein is a neutral endopeptidase that cleaves peptides at the amino side of hydrophobic residues and inactivates several peptide hormones including glucagon, enkephalins, substance P, neurotensin, oxytocin, and bradykinin. This gene, which encodes a 100-kD type II transmembrane glycoprotein, exists in a single copy of greater than 45 kb. The 5' untranslated region of this gene is alternatively spliced, resulting in four separate mRNA transcripts. The coding region is not affected by alternative splicing. [provided by RefSeq, Jul 2008] |
| **UniProt Comments for MME** | CD10: Thermolysin-like specificity, but is almost confined on acting on polypeptides of up to 30 amino acids. Biologically important in the destruction of opioid peptides such as Met- and Leu-enkephalins by cleavage of a Gly-Phe bond. Able to cleave angiotensin-1, angiotensin-2 and angiotensin 1-9. Involved in the degradation of atrial natriuretic factor (ANF). Displays UV- inducible elastase activity toward skin preelastic and elastic fibers. Inhibited in a dose dependent manner by opiorphin. Belongs to the peptidase M13 family.<br><br>Protein type: Membrane protein, integral; EC 3.4.24.11; Protease<br><br>Chromosomal Location of Human Ortholog: 3q25.2<br><br>Cellular Component: axon; brush border; cytoplasm; dendrite; focal adhesion; plasma membrane; synapse; synaptic vesicle<br><br>Molecular Function: endopeptidase activity; exopeptidase activity; metalloendopeptidase activity; metallopeptidase activity; peptide binding; protein binding; zinc ion binding<br><br>Biological Process: angiotensin maturation; beta-amyloid metabolic process; creatinine metabolic process; kidney development; peptide metabolic process; proteolysis; sensory perception of pain<br><br>Disease: Membranous Nephropathy, Susceptibility To |
| **Research Articles on MME** | **1.** CD10 gene expression plays a role in the pathogenesis of diffuse large B-cell lymphoma. |
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