

# Recombinant Human NEP Protein

**For Research Use Only**

## 1. Basic Product Information

Catalog No.: REP50706

Size: 10ug, 100ug

Protein Name: Neprilysin (EC 3.4.24.11) (Atriopeptidase) (Common acute lymphocytic leukemia antigen) (CALLA) (Enkephalinase) (Neutral endopeptidase 24.11) (NEP) (Neutral endopeptidase) (Skin fibroblast elastase) (SFE) (CD antigen CD10)

Synonym: MME, EPN

UniProt ID: P08473

UniProt Link: [www.uniprot.org/uniprotkb/P08473/entry](http://www.uniprot.org/uniprotkb/P08473/entry)

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 750 AA

Molecular Weight: 86 KD

Protein Tag: C-terminal His6

## 2. Amino Acid Sequence

MGKSESQMDITDINTPKPKKKQRWTPLEISLSVLVLLLTIIAVTMIALYATYDDGICKSSDCIKSAARLIQ  
NMDATTEPCTDFFKYACGGWLKRNVIPETSSRYGNFDILRDELEVVLKDVLPKTEDIVAVQKAKA  
LYRSCINESAIDSRGGEPLLKLLPDIYGWPVATENWEQKYGASWTAEKAIQNLNSKYGKKVLINLFG  
TDDKNSVNHVIHIDQPRGLPSRDYYECTGIYKEACTAYVDFMISVARLIRQEERLPIDENQLALEMNK  
VMELEKEIANATAKPEDRNDPMLLYNKMTLAQIQNNFSLEINGKPFWSWLNFTNEIMSTVNSITNEEDV  
VVYAPEYLTCLKPILTKYSARDLQNLMSWRFIMDLVSSLSRTYKESRNAFRKALYGTTSSETATWRRRC  
ANYVNGNMENAVGRLYVEAAFAGESKHVVEDLIAQIREVFIQTLDDLTWMDAETKKRAEEKALAIKE  
RIGYPDDIVSNDNKLNNLEYLELNYKEDEYFENIIQNLKFSQSKQLKKLREKVDKDEWISGAAVVNAFY  
SSGRNQIVFPAGILQPPFFSAQQSNSLNYYGGIGMVIGHEITHGFDDNGRNFNKGDLVDWWTQQSA  
SNFKEQSQCVMVYQYGNFSWDLAGGQHLNGINTLGENIADNGGLGQAYRAYQNYIKKNGEKLLPG  
LDLNHKQLFFLNFAQVWCGTYRPEYAVNSIKTDVHSPGNFRIIGTLQNSAEFSEAFHCRKNSYMNPE  
KKCRVW

## 3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

## 4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

## 5. Product Description

This product is recombinant Neprilysin (EC 3.4.24.11) (Atriopeptidase) (Common acute lymphocytic leukemia antigen) (CALLA) (Enkephalinase) (Neutral endopeptidase 24.11) (NEP) (Neutral endopeptidase) (Skin fibroblast elastase) (SFE) (CD antigen CD10) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

**Protein 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).

**Subcellular Localization:** Cell membrane ; Single-pass type II membrane protein .

## 6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.