

Recombinant Rat NEP Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52253

Size: 10ug, 100ug

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

Synonym: Mme

UniProt ID: P07861

UniProt Link: www.uniprot.org/uniprotkb/P07861/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 750 AA

Molecular Weight: 86 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MGRSESQMDITDINAPKPKKKQRWTPLEISLSVLVLLLTIIAVTMIALYATYDDGICKSSDCIKSAARLIQ
NMDASAEPCTDFFKYACGGWLKRNVIPETSSRYSNFDILRDELEVILKDVLPQPKTEDIVAVQKAKTL
YRSCINESAIDSRGGQPLLTLPLDIYGWPVASQNWQTYGTSWTAEKSLAQLNSKYGKKVLINFFVGT
DDKNSTQHIIHFDQPRGLPSRDYYECTGIYKEACTAYVDFMISVARLIRQEQRLPIDENQLSLEMNK
VMELEKEIANATTKPEDRNDPMLLYNKMTLAKLQNNFSLEINGKPFWSNFTNEIMSTVNINIQNEEE
VVVYAPEYLTCLKPILTKYSPRDLQNLMSWRFIMDLVSSLSRNYKESRNAFRKALYGTTSETATWRR
CANYVNGNMENAVGRLYVEAAAFAGESKHVVEDLIAQIREVFIQTLDLTDWMDAETKKKAEEKALAIKE
RIGYPDDIISNENKLNNEYLELNYKEEEYFENIIQNLKFSQSKQLKKLREKVDKDEWISGAAVVNAFY
SGRNQIVFPAGILQPPFFSARQSNSLNYGGIGMVIGHEITHGFDDNGRNFNKGDLVDWWTQQSAN
NFKDQSQCMVYQYGNFTWDLAGGQHLNGINTLGENIADNGGIGQAYRAYQNYVKKNGEEKLLPGL
DLNHKQLFFLNFAQVWCGTYRPEYAVNSIKTDVHSPGNFRIIGTLQNSAEFADAFHCRKNSYMNPER
KCRVW

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) (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:2966343). Biologically important in the destruction of opioid peptides such as Met- and Leu-enkephalins by cleavage of a Gly-Phe bond (PubMed:2966343). Catalyzes cleavage of bradykinin, substance P and neurotensin peptides (By similarity). Able to cleave angiotensin-1, angiotensin-2 and angiotensin 1-9 (PubMed:2966343). Involved in the degradation of the atrial natriuretic factor (ANF) (PubMed:2966343). Displays UV-inducible elastase activity toward skin preelastic and elastic fibers (By similarity).

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.