

Neprilysin/CD10 Protein, Rhesus Macaque (HEK293, His)

Cat. No.:	HY-P75607
Synonyms:	Neprilysin; Atriopeptidase; CALLA; NEP; SFE; CD10; MME
Species:	Rhesus Macaque
Source:	HEK293
Accession:	F7H3Y6 (Y52-W750)
Gene ID:	707667
Molecular Weight:	Approximately 95 kDa

PROPERTIES

AA Sequence

YDDGICKSSD	CIKSAARLIQ	NMDATAEPCA	DDFFKYACGGW
LKRNVIPETS	SRYGNFDIR	DELEVVLKDV	LQEPKTEDIV
AVQKAKTLR	SCINESAIDS	RGGEPLLLKLL	PDIYGWPVAT
ENWEQKYGAS	WTAEKAI AQL	NSKYGKKVLI	NL FVGTDDKN
SVNHV IHIDQ	PRLGLPSRDY	YECTGIYKEA	CTAYVDFMIS
VARLIRQEER	LPIDENQLAL	EMNKVMELEK	EIANATAKPE
DRNDPMLLYN	KMTLAQLQSN	FSLEINGKPF	SWLNFTNEIM
STVNI SITNE	EDVVVYAPEY	LTKLKPILTK	YSARDLQNL M
SWRFIMDLVS	SLSRTYKESR	NAFRKALYGT	TSETATWRRC
ANYVNGNMEN	AVGRLYVEAA	FAGESKHVVE	DLIAQIREVF
IQTLDLDTWM	DAETKKRAEE	KALAIKERIG	YPDDIVSNDN
KLNNEYLELN	YKED EYFENI	IQNLKFSQSK	QLKKLREKVD
KDEWISGA AV	VNAFYSSGRN	QIVFPAGILQ	PPFFSAQQSN
SLNYGGIGMV	IGHEITHGFD	DNGRNFNKDG	DLVDWWTQQS
ASNFKEQSQC	MVYQYGNFSW	DLAGGQHLNG	INTLGENIAD
NGGIGQAYRA	YQNYVKKNGE	EKLLPGLDLN	HKQLFFLNFA
QVWCGTYRPE	YAVNSIKTDV	HSPGNFR IIG	TLQNSAEFSE
AFHCRKNSYM	NPEKKCRVW		

Biological Activity

Measured by its ability to cleave a peptide substrate, Mca-(ala⁷,lys(dnp)⁹)-bradykinin. Read at excitation and emission wavelengths of 320 nm and 405 nm (top read). The specific activity is 4008.09 pmol/min/μg, as measured under the described conditions.

Appearance

Lyophilized powder

Formulation

Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.

Endotoxin Level

<1 EU/μg, determined by LAL method.

Reconstitution

It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH₂O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION**Background**

MME is a cell-surface peptidase member of the M13 family of zinc peptidases, which also includes endothelin converting enzymes (ECE-1 and ECE-2), KELL and PEX. MME cleaves peptide bonds on the amino side of hydrophobic amino acids and is the key enzyme in processing of a variety of physiologically active peptides, such as GRP, neurotensin (NT), and vasoactive intestinal peptide (VIP). MME is downregulated in nearly 50% of primary and metastatic prostate cancers, independently predicting an inferior prognosis. In addition to its downregulation by androgen withdrawal, MME expression is also downregulated by methylation, suggesting its tumor-suppressive effects. Indeed, MME expression reduces growth, motility, and survival of prostate cancer cells in cell culture. Consistent with these observations, replacements of MME inhibit tumorigenicity of prostate cancer cells in xenograft experiments^[1].

Caution: Product has not been fully validated for medical applications. For research use only.

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