



# Recombinant Rat Carboxypeptidase-B

20210224BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

<b>Cat.-no.:</b>	<b>R20-019</b>
<b>Size:</b>	25 µg
<b>Lot. No.:</b>	According to product label

## Scientific Background

<b>Gene-ID (NCBI):</b>	24271
<b>Synonyms:</b>	Cpb1; Cpb

Proteases (also called Proteolytic Enzymes, Peptidases, or Proteinases) are enzymes that hydrolyze the amide bonds within proteins or peptides. Most proteases act in a specific manner, hydrolyzing bonds at or adjacent to specific residues or a specific sequence of residues contained within the substrate protein or peptide. Proteases play an important role in most diseases and biological processes including prenatal and postnatal development, reproduction, signal transduction, the immune response, various autoimmune and degenerative diseases, and cancer. They are also an important research tool, frequently used in the analysis and production of proteins. Carboxypeptidase-B sequentially cleaves C terminal K and R residues. Recombinant rat Carboxypeptidase-B is a 35.1 kDa protein consisting of 307 amino acids.

## Sequence

```
ASGHSYTKYN  NWETIEAWIQ  QVATDNPDLV  TQSVIGTTFE
GRNMYVLKIG  KTRPNKPAIF  IDCGFHAREW  ISPAFCQWFV
REAVRTYNQE  IHMKQLLDEL  DFYVLPVVNI  DGYVYTWTKD
RMWRKTRSTM  AGSSCLGVDP  NRNFNAGWCE  VGASRSPCSE
TYCGPAPESE  KETKALADFI  RNNLSTIKAY  LTIHSYSQMM
LYPYSYDYKL  PENYEELNAL  VKGAAKELAT  LHGTKYTYGP
GATTIYP AAG  GSDDWSYDQG  IKYSFTFELR  DTGFFGFLLP
ESQIRQTCEE  TMLAVKYIAN  YVREHLY
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## Database References

<b>Protein RefSeq:</b>	NP_036665.1
<b>Uniprot ID:</b>	P19223
<b>mRNA RefSeq:</b>	NM_012533.1

## Product Specifications

<b>Expressed in</b>	E. coli
<b>Purity</b>	>95% by SDS-PAGE & HPLC analysis
<b>Endotoxin level</b>	< 0.1 ng /µg of protein (<1EU/µg).
<b>Formulation</b>	Lyophilized (20mM Tris, pH 8.0 + 50mM NaCl)
<b>Length (aa):</b>	307
<b>MW:</b>	35.1 kDa

**Stability:** The lyophilized protein is stable at room temperature for 1 month and at 4°C for 6 months. Reconstituted working aliquots are stable for 1 week at 2°C to 8°C and for 3 months at -20°C to -80°C.

**Reconstitution:** Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. *Do not vortex.* This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer (e.g. PBS) containing a carrier protein (e.g. 0.1% BSA) and store in working aliquots at -20°C to -80°C.



AVOID REPEATED FREEZE AND THAW CYCLES!

**Biological Activity:** Carboxypeptidase-B sequentially cleaves C terminal K and R residues.