

# Human Carboxypeptidase M / CPM Protein (His Tag)

Catalog Number: 11228-H08H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

CPM

### Protein Construction:

A DNA sequence encoding the human CPM (NP\_938079.1) without the propeptide (Met 1-His 422) was expressed, fused with a polyhistidine tag at the C-terminus.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 98 % as determined by SDS-PAGE

### Bio Activity:

**Measured by its ability to release Larginine from BenzoylAlaArg, with detection of the arginine amino group by ophthalaldehyde. The specific activity is >40,000 pmoles/min/μg.**

### Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Leu 18

### Molecular Mass:

The secreted recombinant human CPM comprises 416 amino acids and has a predicted molecular mass of 47.7 kDa as estimated in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

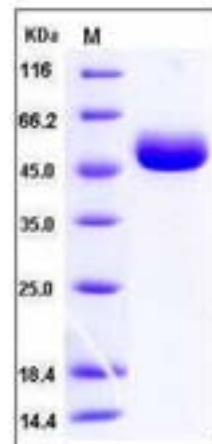
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Carboxypeptidase M, also known as CPM, is a membrane-bound arginine/lysine carboxypeptidase which is a member of the carboxypeptidases family. These enzymes remove C-terminal amino acids from peptides and proteins and exert roles in the physiological processes of blood coagulation/fibrinolysis, inflammation, food digestion and pro-hormone and neuropeptide processing. Among the carboxypeptidases CPM is of particular importance because of its constitutive expression in an active form at the surface of specialized cells and tissues in the human body. CPM in the brain appears to be membrane-bound via a phosphatidylinositol glycan anchor. CPM is widely distributed in a variety of tissues and cells. The amino acid sequence of CPM indicated that the C-terminal hydrophobic region might be a signal for membrane attachment via a glycosylphosphatidylinositol (GPI) anchor. CPM is involved in peptide metabolism on both the cell surface and in extracellular fluids. CPM functions not only as a protease but also as a binding partner in cell-surface protein-protein interactions.

## References

- 1.Deddish PA. et al., 1990, J Biol Chem. 265 (25): 15083-9.
- 2.Nagae A. et al., 1992, J Neurochem. 59 (6): 2201-12.
- 3.Skidgel RA. et al., 1996, Immunopharmacology. 32 (1-3): 48-52.

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