

# Recombinant Human Carboxypeptidase B2/CPB2 Protein (His Tag)



Catalog Number:PKSH031108

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

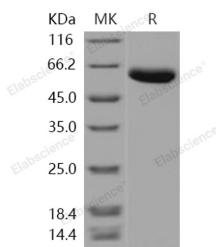
## Description

<b>Synonyms</b>	Carboxypeptidase B2;Carboxypeptidase U;CPU;Plasma Carboxypeptidase B;pCPB;Thrombin-Activable Fibrinolysis Inhibitor;TAFI;CPB2
<b>Species</b>	Human
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Met 1-Val 423
<b>Accession</b>	NP_001863.2
<b>Calculated Molecular Weight</b>	47.4 kDa
<b>Observed molecular weight</b>	45-50 kDa
<b>Tag</b>	C-His

## Properties

<b>Purity</b>	> 97 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

## Data



> 97 % as determined by reducing SDS-PAGE.

## Background

Carboxypeptidase B2, also known as Carboxypeptidase U, Thrombin-activable fibrinolysis inhibitor, Plasma carboxypeptidase B, CPB2, is a secreted protein which belongs to the peptidase M14 family. Carboxypeptidases are enzymes that hydrolyze C-terminal peptide bonds. The carboxypeptidase family includes metallo-, serine, and cysteine carboxypeptidases. According to their substrate specificity, these enzymes are referred to as carboxypeptidase A (cleaving aliphatic residues) or carboxypeptidase B (cleaving basic amino residues). CPB2 is activated by thrombin and acts on carboxypeptidase B substrates. After thrombin activation, the mature protein downregulates fibrinolysis. CPB2 is synthesized by the liver and circulates in the plasma as a plasminogen-bound zymogen. When it is activated by proteolysis

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at residue Arg92 by the thrombin / thrombomodulin complex. CPB2 cleaves C-terminal arginine or lysine residues from biologically active peptides such as kinins or anaphylatoxins in the circulation thereby regulating their activities. CPB2 exhibits carboxypeptidase activity and activated CPB2 reduces fibrinolysis by removing the fibrin C-terminal residues that are important for the binding and activation of plasminogen.

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