

Carboxypeptidase B2 (CPB2) Active Protein | CPB2 active protein

Active Carboxypeptidase B2 (CPB2)

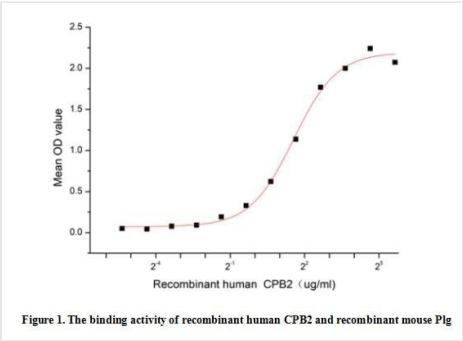
CATALOG # AAA161755	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Carboxypeptidase B2 (CPB2); Active Carboxypeptidase B2 (CPB2); Carboxypeptidase B2; TAFI; CPU; PCPB; Thrombin Activatable Fibrinolysis Inhibitor; Plasma Carboxypeptidase B; Carboxypeptidase U4; CPB2 active protein

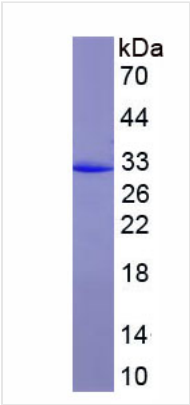
PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 97% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Glu138~Val 386
Applicable Applications for CPB2 active protein	Activity Assay, Cell Culture
Species	Human
Expression System	Prokaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	8.7
Research Area	Metabolic pathway, Hematology
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months



Bioactivity

Carboxypeptidase B2 (CPB2), also known as carboxypeptidase U (CPU) and thrombin-activatable fibrinolysis inhibitor (TAFI), is a member of the peptidase M14 family. CPB2 is synthesized by the liver and circulates in plasma as a plasminogen-bound zymogen. It can cleave C-terminal arginine or lysine residues from biologically active peptides such as kinins or anaphylatoxins in the circulation thereby regulating their activities and Down-regulates fibrinolysis by removing C-terminal lysine residues from fibrin that has already been partially degraded by plasmin. Besides, Plasminogen (Plg) has been identified as an interactor of CPB2, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human CPB2 and recombinant mouse Plg. Briefly, CPB2 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to Plg-coated microtiter wells and incubated for 1h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-CPB2 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37 degree C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50 uL stop solution to the wells and read at 450/630 nm immediately. The binding activity of recombinant human CPB2 and recombinant mouse Plg was shown in Figure 1, the EC50 for this effect is 2.9 ug/mL.



SDS-PAGE

Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for CPB2 active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	126273569
NCBI GeneID	1361
NCBI Accession #	NP_001863.2
NCBI GenBank Nucleotide #	NM_001872.3
UniProt Accession #	Q96IY4; Q15114; Q5T9K1; Q5T9K2; Q9P2Y6; A8K464
Molecular Weight	48,424 Da
NCBI Official Full Name	carboxypeptidase B2 preproprotein
NCBI Official Synonym Full Names	carboxypeptidase B2 (plasma)
NCBI Official Symbol	CPB2
NCBI Official Synonym Symbols	CPU; PCPB; TAFI
NCBI Protein Information	carboxypeptidase B2; carboxypeptidase R; carboxypeptidase B-like protein; thrombin-activable fibrinolysis inhibitor; thrombin-activatable fibrinolysis inhibitor; carboxypeptidase B2 (plasma, carboxypeptidase U)
UniProt Protein Name	Carboxypeptidase B2
UniProt Gene Name	CPB2
UniProt Synonym Gene Names	CPU; pCPB; TAFI

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/e-coli-active-protein/carboxypeptidase-b2-cpb2/161755>