

## Creatine kinase B-type/CKB Protein, Human (His)

<b>Cat. No.:</b>	HY-P7897
<b>Synonyms:</b>	rHuCreatine kinase B-type/CKB , His; B-CK; CKB; Creatine Kinase BB
<b>Species:</b>	Human
<b>Source:</b>	E. coli
<b>Accession:</b>	P12277 (M1-K381)
<b>Gene ID:</b>	1152
<b>Molecular Weight:</b>	Approximately 50.0 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> M P F S N S H N A L   K L R F P A E D E F   P D L S A H N N H M   A K V L T P E L Y A E L R A K S T P S G   F T L D D V I Q T G   V D N P G H P Y I M   T V G C V A G D E E S Y E V F K D L F D   P I I E D R H G G Y   K P S D E H K T D L   N P D N L Q G G D D L D P N Y V L S S R   V R T G R S I R G F   C L P P H C S R G E   R R A I E K L A V E A L S S L D G D L A   G R Y Y A L K S M T   E A E Q Q Q L I D D   H F L F D K P V S P L L L A S G M A R D   W P D A R G I W H N   D N K T F L V W V N   E E D H L R V I S M Q K G G N M K E V F   T R F C T G L T Q I   E T L F K S K D Y E   F M W N P H L G Y I L T C P S N L G T G   L R A G V H I K L P   N L G K H E K F S E   V L K R L R L Q K R G T G G V D T A A V   G G V F D V S N A D   R L G F S E V E L V   Q M V V D G V K L L I E M E Q R L E Q G   Q A I D D L M P A Q   K </pre>
<b>Biological Activity</b>	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
<b>Appearance</b>	Solution.
<b>Formulation</b>	Supplied as a 0.2 µm filtered solution of 20 mM Tris-HCl, 150 mM NaCl, 10% Glycerol, pH 7.5.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	N/A
<b>Storage &amp; Stability</b>	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
<b>Shipping</b>	Shipping with dry ice.

### DESCRIPTION

<b>Background</b>	Creatine kinase B (CKB) is indispensable for thermogenesis resulting from the futile creatine cycle, during which it traffics to
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mitochondria using an internal mitochondrial targeting sequence. CKB is powerfully induced by thermogenic stimuli in both mouse and human adipocytes. Adipocyte-selective inactivation of Ckb in mice diminishes thermogenic capacity, increases predisposition to obesity, and disrupts glucose homeostasis. CKB is therefore a key effector of the futile creatine cycle<sup>[1]</sup>.

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## REFERENCES

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[1]. Janane F Rahbani, et al. Creatine kinase B controls futile creatine cycling in thermogenic fat. *Nature*. 2021 Feb;590(7846):480-485.

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

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