

Creatine Kinase, Brain (CKB) Active Protein | CKB active protein

Active Creatine Kinase, Brain (CKB)

CATALOG # AAA149256	HOST E. coli	REACTIVITY Homo sapiens (Human)	APPLICATIONS Activity Assay, Cell Culture
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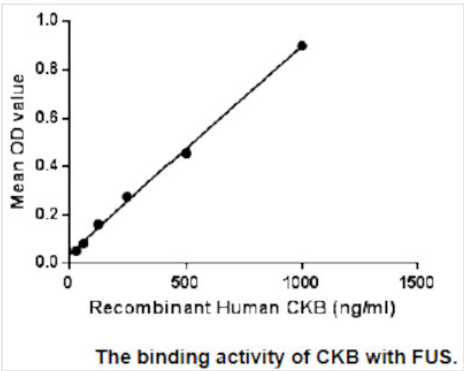
PRODUCT SYNONYMS

Creatine Kinase; Brain (CKB); Active Creatine Kinase; CK-BB; CKBB; CK-B; CK-1; CKB active protein

PRODUCT SPECIFICATIONS

Host	E. coli
Reactivity	Homo sapiens (Human)
Purity/Purification	>95%
Form/Format	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 0.01% SKL, 5% Trehalose .
Concentration	Original Concentration: 250ug/mL (varies by lot)
Applicable Applications for CKB active protein	Activity Assay, Cell Culture
Source	Prokaryotic expression.
Residues	Lys11~Leu367
Tags	N-terminal His-tag
Predicted isoelectric point	5.7
Usage	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0mg/mL. Do not vortex.
Preparation and Storage	Storage: Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

IMAGES



Activity

Creatine Kinase, Brain (CKB) consists of a homodimer of two identical brain-type CK-B subunits. CKB is a cytoplasmic enzyme involved in cellular energy homeostasis, with certain fractions of the enzyme being bound to cell membranes, ATPases, and a variety of ATP-requiring enzymes in the cell. The protein reversibly catalyzes the transfer of "energy-rich" phosphate between ATP and creatine or between phospho-creatine (PCr) and ADP. Besides, Fusion (FUS) has been identified as an interactor of CKB, thus a binding ELISA assay was conducted to detect the interaction of recombinant human CKB and recombinant human FUS. Briefly, CKB were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to FUS-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-CKB pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of CKB and FUS was shown in Figure 1, and this effect was in a dose dependent manner.

ADDITIONAL INFORMATION

Product Categories/Family for CKB active protein	Enzyme & Kinase; Metabolic pathway; Cardiovascular biology; Neuroscience
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NCBI AND UNIPROT INFORMATION

NCBI GI #	125294
NCBI GeneID	1152
UniProt Accession #	P12277
Molecular Weight	Predicted Molecular Mass: 41.3kDa Accurate Molecular Mass: 41kDa as determined by SDS-PAGE reducing conditions
NCBI Official Full Name	Creatine kinase B-type
NCBI Official Synonym Full Names	creatine kinase B
NCBI Official Symbol	CKB
NCBI Official Synonym Symbols	BCK; B-CK; CKBB; CPK-B; HEL-211; HEL-S-29
NCBI Protein Information	creatine kinase B-type
UniProt Protein Name	Creatine kinase B-type
UniProt Gene Name	CKB
UniProt Synonym Gene Names	CKBB
UniProt Entry Name	KCRB_HUMAN

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://stage.aaabiotech.com/e-coli-homo-sapiens-human-active-protein/creatine-kinase-brain-ckb/149256>