



RayBiotech, Inc.

3607 Parkway Lane suite 200
Norcross, GA 30092
Tel: 770-729-2992, 1-888-494-8555
Fax: 770-206-2393
Website: www.raybiotech.com
Email: info@raybiotech.com

Product Catalog No. 230-00039

Recombinant Human Creatine Kinase, Brain (CKB)

Synonyms

Creatine kinase, brain; creatine kinase B-type; CKBB; creatine kinase-B; creatine kinase B chain.

Description

Creatine Kinase, Brain (CKB) is a cytoplasmic enzyme involved in energy homeostasis. The CKB enzyme belongs to the ATP: guanido phosphotransferase protein family and play a critical role in energy transduction in some tissues (e.g. heart, skeletal muscle, brain and spermatozoa) with large, fluctuating energy demands. The CKB reversibly catalyzes the transfer reaction of phosphate between ATP and various phosphogens (e.g. creatine phosphate). The serum levels of CKBB are associated with cancers of the colon, ovary, prostate, breast, and other gastrointestinal carcinomas, and for small-cell anaplastic carcinoma of the lung.

Source

- Recombinant protein, purified from *Escherichia coli*.
- Protein accession No. P12277 (Pro2 - Lys381).

Preparation

The gene encoding the full length of human CKB protein was cloned and expressed in *E. coli*. The recombinant CKB protein was purified by proprietary chromatographic techniques.

Predicted Molecular Mass

~ 43 kDa.

Concentration

Lot specific (see label on the vial).

Formulation

Liquid, clear solution. Supplied as a 0.2 µm filtered solution of phosphate-buffered saline (PBS) containing 40% glycerol.

Purity

>95%, determined by SDS-PAGE and stained with Commassie blue. (See image below).



Stability & Storage

Upon arrival, the protein should be stored at 4°C for one week. For long term storage, it is recommended to add a carrier protein (0.1% HSA or BSA) and store at -20 or -80°C. **Please avoid repeated freeze-thaw cycles.**

References

1. Wallimann T, et al. (1992) Intracellular compartmentation, structure and function of creatine kinase isoenzymes in tissues with high and fluctuating energy demands: the 'phosphocreatine circuit' for cellular energy homeostasis. *The Biochemical Journal* 281 (1): 21–40.
2. Wallimann T, Hemmer W. (1994) Creatine kinase in non-muscle tissues and cells". *Molecular and Cellular Biochemistry* 133–134: 193–220.
3. Schlattner U, et al. (2006) Mitochondrial creatine kinase in human health and disease. *Biochimica et Biophysica Acta* 1762 (2): 164–80.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**