



# Recombinant Protein Technical Manual

## Recombinant Human Creatine Kinase BB/CKB Protein (His Tag) RPES3312

### Product Data:

**Product SKU:** RPES3312

**Size:** 10µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** P12277

### Protein Information:

**Molecular Mass:** 44.8 kDa

**AP Molecular Mass:** 50 kDa

**Tag:** N-His

**Bio-activity:**

**Purity:** > 90% as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

**Shipping:** This product is provided as liquid. It is shipped at frozen temperature with blue ice. Upon receipt, store it immediately at < -20°C.

**Formulation:** Supplied as a 0.2 µm filtered solution of 20mM TrisHCl, 150mM NaCl, 10% Glycerol, pH 7.5.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** B-CK; CKB; Creatine Kinase BB

## Immunogen Information:

**Sequence:** Met1-Lys381

## Background:

Creatine kinase B-type (CKB) belongs to the ATP:guanido phosphotransferase family. It has dimer of identical or non-identical chains with MM being the major form in skeletal muscle and myocardium. MB exists in myocardium, and BB exists in many tissues, especially brain. CKB reversibly catalyzes the transfer of phosphate between ATP and various phosphogens (e. g. creatine phosphate). Creatine kinase isoenzymes play a central role in energy transduction in tissues with large, fluctuating energy demands, such as skeletal muscle, heart, brain and spermatozoa. Clinically, creatine kinase is assayed in blood tests as a marker of myocardial infarction (heart attack), rhabdomyolysis (severe muscle breakdown), muscular dystrophy, autoimmune myositides and acute renal failure.