Recombinant Human Creatine Kinase MB Isoenzyme Type-II
Cat No ABC1126

Source: Pichia Pastoris

Background:
The three isoenzymes (MM, MB, and BB) are found in muscle, cardiac and brain tissues. These recombinant proteins are ideal for calibrating diagnostic instruments and researching neuromuscular diseases. Creatine Kinases can be used for indications in many neuromuscular applications. These disorders include cardiac disease, mitochondrial disorders, inflammatory myopathies, myasthenia, polymyositis, McArdle's disease, NMJ disorders, muscular dystrophy, ALS, hyp and hyperthyroid disorders, central core disease, acid maltase deficiency, myoglobinuria, rhabdomyolysis, motor neuron diseases, rheumatic diseases, and other that create elevated or reduced levels of Creatine Kinases.

Description:
Recombinant Human Creatine Kinase CKMBITII produced in Pichia pastoris is a glycosylated polypeptide chain having an identical amino acid sequence compared to the native enzyme, purified under non-denaturing conditions and reacts with polyclonal antibodies to MB Isoenzyme in ELISA. Recombinant Human Creatine Kinase CKMBITII is purified by proprietary chromatographic techniques.

Physical Appearance:
Sterile Filtered colourless liquid formulation.

Formulation:
Each mg of protein (15.8mg/ml) contains 20mM Tris-HCl pH-6.8, 1mM EDTA and 1mM DTT.

Stability:
Recombinant Human CKMBITII although stable at 15°C for 7 days, should be stored desiccated below -18°C. Please avoid freeze-thaw cycles.

Purity:
Greater than 95.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Anion-exchange FPLC.
(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

Dimers and aggregates:
Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

Biological Activity:
The biological activity measured by the enzymatic activity of Creatine phosphokinase procedure No.45-UV, 1IU-1 µmole creatine phosphate was 500IU/mg at 37 degrees celsius.

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Endotoxin:
Less than 0.1 ng/µg (IEU/µg) of Human CKMBITII.

Latest Publications:
1. Does creatine kinase-MB (CK-MB) isoenzyme elevation following percutaneous coronary intervention with drug-eluting stents impact late clinical outcome?  
   *Catheter Cardiovasc Interv* 2007 Jul 9;

2. Effects of persistent platelet reactivity despite aspirin therapy on cardiac troponin I and creatine kinase-MB levels after elective percutaneous coronary interventions.  
   *J Thromb Thrombolysis* 2007 Jun 16;

3. Postmortem cardiac troponin I and creatine kinase MB levels in the blood and pericardial fluid as markers of myocardial damage in medicolegal autopsy.  
   *Leg Med (Tokyo)* 2007 Sep;9(5):241-250

4. Falsely elevated creatine kinase MB and cardiac troponin T in patients suspected of acute myocardial infarction.  

   *J Thorac Cardiovasc Surg* 2007 Mar;133(3):704-9

   *Eur Heart J* 2007 Feb;28(4):425-32

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