



# CKMT1

## Mouse monoclonal Antibody

### #53130

**Catalog Number:** 53130

**Amount:** 100µg/100µl

**Swiss-Prot No. :** P12532

**Gene name:** ckmt1b

**Gene id:** 1159

**Clone Number:** 1A6-C7-G10

**Form of Antibody:** Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.2% sodium azide, 50% glycerol

**Storage/Stability:** Store at -20°C/1 year

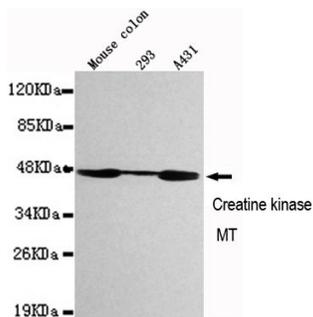
**Immunogen:** Purified recombinant human CKMT1 protein fragments expressed in E.coli

**Purification:** affinity-chromatography

**Specificity/Sensitivity:** This antibody detects endogenous levels of CKMT1 and does not cross-react with related proteins

**Reactivity:** Human, Mouse

**Applications:** Predicted MW: 47kd WB: 1:1000



Western blot detection of CKMT1 in Mouse Colon, 293 and A431 cell lysates using CKMT1 mouse mAb (1:1000 diluted). Predicted band size: 47KDa. Observed band size: 47KDa.

### Background:

Mitochondrial creatine (MtCK) kinase is responsible for the transfer of high energy phosphate from mitochondria to the cytosolic carrier, creatine. It belongs to the creatine kinase isoenzyme family. It exists as two isoenzymes, sarcomeric MtCK and ubiquitous MtCK, encoded by separate genes. Mitochondrial creatine kinase occurs in two different oligomeric forms: dimers and octamers, in contrast to the exclusively dimeric cytosolic creatine kinase isoenzymes. Many malignant cancers with poor prognosis have shown overexpression of ubiquitous mitochondrial creatine kinase; this may be related to high energy turnover and failure to eliminate cancer cells via apoptosis. Ubiquitous mitochondrial creatine kinase has 80% homology

with the coding exons of sarcomeric mitochondrial creatine kinase. Two genes located near each other on chromosome 15 have been identified which encode identical mitochondrial creatine kinase proteins.