

## Recombinant Human CKMT1A Protein (His Tag)

Catalog No. PKSH030325

*Note:* Centrifuge before opening to ensure complete recovery of vial contents.

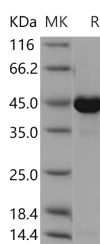
### Description

|                                    |                            |
|------------------------------------|----------------------------|
| <b>Synonyms</b>                    | CKMT;CKMT1;CKMT1A          |
| <b>Species</b>                     | Human                      |
| <b>Expression Host</b>             | Baculovirus-Insect Cells   |
| <b>Sequence</b>                    | Ala 40-His 417             |
| <b>Accession</b>                   | P12532-1                   |
| <b>Calculated Molecular Weight</b> | 45.3 kDa                   |
| <b>Observed molecular weight</b>   | 43 kDa                     |
| <b>Tag</b>                         | N-His                      |
| <b>Bioactivity</b>                 | Not validated for activity |

### Properties

|                       |   |
|-----------------------|---|
| <b>Purity</b>         | > 95 % as determined by reducing SDS-PAGE.  |
| <b>Endotoxin</b>      | < 1.0 EU per µg of the protein as determined by the LAL method.   |
| <b>Storage</b>        | Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.  |
| <b>Shipping</b>       | This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C. |
| <b>Formulation</b>    | Supplied as sterile solution of 20mM Tris, 500mM NaCl, pH 8.5, 10% glycerol   |
| <b>Reconstitution</b> | Not Applicable  |

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

CKMT1A belongs to the ATP:guanido phosphotransferase family. It contains 1 phosphagen kinase C-terminal domain and 1 phosphagen kinase N-terminal domain. CKMT1A gene is one of two genes which encode the ubiquitous mitochondrial creatine kinase (CKMT1). CKMT1 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 (CKMT2) and ubiquitous MtCK, encoded by separate genes. CKMT1 occurs in two different oligomeric forms: dimers and octamers, in contrast to the exclusively dimeric cytosolic creatine kinase

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isoenzymes. Ubiquitous mitochondrial creatine kinase has 80% homology with the coding exons of sarcomeric CKMT1.