



Recombinant Protein Technical Manual  
Recombinant Mouse CAMK4/CaMKIV Protein (His & GST Tag)  
RPES4177

#### Product Data:

**Product SKU:** RPES4177

**Size:** 20µg

**Species:** Mouse

**Expression host:** Baculovirus-Insect Cells

**Uniprot:** P08414

#### Protein Information:

**Molecular Mass:** 80.4 kDa

**AP Molecular Mass:** 85 kDa

**Tag:** N-His-GST

**Bio-activity:**

**Purity:** > 94 % as determined by SDS-PAGE

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

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% gly

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

**Application:**

**Synonyms:** A430110E23Rik;AI666733;CaMKIV;CaMKIV/Gr;D18Bwg0362e

## Immunogen Information:

**Sequence:** Met1-Tyr469

## Background:

Ca<sup>2+</sup>/ calmodulin-dependent protein kinase 4 (CAMK<sup>IV</sup>) belongs to the serine/threonine protein kinase family, and to the Ca<sup>2+</sup>/calmodulin-dependent protein kinase subfamily which is widely recognized as an essential enzyme implicated in the phosphoinositide amplification cascade. Ca<sup>2+</sup>/calmodulin dependent protein kinase (CAMK) can be activated by the intracellular increased Ca<sup>2+</sup> and then apt to combine with the target protein. Ca<sup>2+</sup>/ calmodulin-dependent protein kinase 4 (CAMK<sup>IV</sup>) is a multifunctional CaM-dependent kinase protein with limited tissue distribution, that has been implicated in transcriptional regulation in lymphocytes, neurons and male germ cells. All of the isoforms of this family, including myosin light chain kinase, phosphorylase kinase, CaMK1, CaMK<sup>III</sup> and CaMK<sup>IV</sup> have EF-hand structure.