



# Recombinant Protein Technical Manual

**Recombinant Human CSNK1G1/CKI-gamma 1  
Protein (His & GST Tag)(Active)  
RPES1216**

## Product Data:

**Product SKU:** RPES1216

**Size:** 20µg

**Species:** Human

**Expression host:** Baculovirus-Insect Cells

**Uniprot:** NP\_071331.2

## Protein Information:

**Molecular Mass:** 76.3 kDa

**AP Molecular Mass:** 66 kDa

**Tag:** N-His & GST

**Bio-activity:** The specific activity was determined to be 4 nmol/min/mg using casein as substrate.

**Purity:** > 94 % 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/gel packs. Upon receipt, store it immediately at < -20°C.

**Formulation:** Supplied as sterile 20mM Tris, 500mM NaCl, 10% gly, pH 7.4

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

**Application:**

**Synonyms:** CK1gamma1

## Immunogen Information:

**Sequence:** Met 1-Lys 422

## Background:

Casein kinase I isoform gamma, also known as CSNK1G1, is a member of the protein kinase superfamily, CK1 Ser/Thr protein kinase family and casein kinase I subfamily. The casein kinase I family of protein kinases are serine / threonine-selective enzymes that function as regulators of signal transduction pathways in most eukaryotic cell types. Casein has been used as a substrate since the earliest days of research on protein phosphorylation. Casein kinase activity associated with the endoplasmic reticulum of mammary glands was first characterized in 1974 and its activity was shown to not depend on cyclic AMP. The CKI family of monomeric serine–threonine protein kinases is found in eukaryotic organisms from yeast to human. Mammals have seven family members: alpha, beta 1, gamma 1, gamma 2, gamma 3, delta, and epsilon. The family members have the highest homology in their kinase domains (53%–98% identical) and differ from most other protein kinases by the presence of the sequence S-I-N instead of A-P-E in kinase domain VIII. The CKI family members appear to have similar substrate specificity and substrate selection is thought to be regulated via subcellular localization and docking sites in specific substrates.