



# Recombinant Protein Technical Manual

## Recombinant Human CSNK1G2 Protein (His Tag)

RPES1443

### Product Data:

**Product SKU:** RPES1443

**Size:** 10µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** P78368

### Protein Information:

**Molecular Mass:** 47.6 kDa

**AP Molecular Mass:** 47.6 kDa

**Tag:** N-6His

**Bio-activity:**

**Purity:** > 90 % 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 a 0.2 µm filtered solution of 20mM Tris, 500mM NaCl, 10% Glycerol, 1mM DTT, pH 8.0.

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

**Application:**

**Synonyms:** Casein kinase I isoform gamma-2; CK1G2; CSNK1G2

## Immunogen Information:

**Sequence:** Met 18-Lys415

## Background:

Casein kinase I gamma 2 isoform (CSNK1G2), a member of the large casein kinase I (CKI) subfamily, protein kinase superfamily. It may affect the development of brain, and associate with vesicular trafficking and neurotransmitter releasing from small synaptic vesicles. The CKI family includes several other isoforms (alpha, beta, gamma, and delta). Dishevelled (Dsh), another positive component of the Wnt pathway, becomes phosphorylated in response to Wnt signals. All the CKI isoforms, with the exception of gamma, increase the phosphorylation of Dsh in vivo. Casein kinase 1 gamma (CK1gamma, or CSNK1G) is associated with the cell membrane and binds to LRP. CK1gamma was found to be needed for Wnt signaling through Wnt receptor LRP. CSNK1G2 inhibits Smad3-mediated TGF-beta responses including induction of target genes and cell growth arrest, and this inhibition is dependent on CSNK1G2 kinase activity. The overexpression of CSNK1G2 in human cancers, may act as an oncoprotein during tumorigenesis. In addition, as an MTA1s-binding protein, CSNK1G2 could further potentiate the estrogen receptor (ER) corepressive function of MTA1s.