

# Recombinant Human CSNK1G2 Protein (His Tag)

Catalog Number:PKSH032010



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

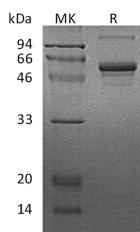
## Description

<b>Synonyms</b>	Casein kinase I isoform gamma-2;CK1G2;CSNK1G2
<b>Species</b>	Human
<b>Expression Host</b>	E.coli
<b>Sequence</b>	Met 18-Lys415
<b>Accession</b>	P78368
<b>Calculated Molecular Weight</b>	47.6 kDa
<b>Observed molecular weight</b>	50-60 kDa
<b>Tag</b>	N-His

## Properties

<b>Purity</b>	> 90 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per $\mu$ g 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 a 0.2 $\mu$ m filtered solution of 20mM Tris-HCl, 500mM NaCl, 10% Glycerol, 1mM DTT, pH 8.0.
<b>Reconstitution</b>	Not Applicable

## Data



> 90 % as determined by reducing SDS-PAGE.

## 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.

## For Research Use Only

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