

Recombinant Human CSNK1G2 Protein (His Tag)

Catalog No. PKSH030337

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

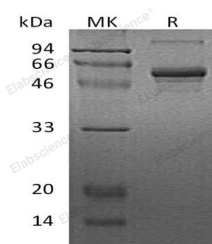
Description

Synonyms	Casein kinase I isoform gamma-2;CK1G2;CSNK1G2
Species	Human
Expression Host	Baculovirus-Insect Cells
Sequence	Met 18-Lys 415
Accession	P78368-1
Calculated Molecular Weight	47.8 kDa
Observed molecular weight	48 kDa
Tag	N-His
Bioactivity	The specific activity was determined to be 13 nmol/min/mg using casein as substrate.

Properties

Purity	> 80 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein 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 solution of 20mM Tris, 500mM NaCl, 10% glycerol, 1mM DTT, pH 8.0
Reconstitution	Not Applicable

Data



> 80 % 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.

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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.

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