

# Human CSNK2A2 / CK2A2 Protein (His & GST Tag)

Catalog Number: 11018-H20B



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

CK2A2; CSNK2A1

### Protein Construction:

A DNA sequence encoding the human CSNK2A2 (NP\_001887.1) (Met 1-Arg 350) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

**Source:** Human

**Expression Host:** Baculovirus-Insect Cells

## QC Testing

**Purity:** > 92 % as determined by SDS-PAGE

### Bio Activity:

**The specific activity was determined to be 30 nmol/min/mg using casein as substrate.**

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Met

### Molecular Mass:

The recombinant human CSNK2A2/GST chimera consists of 587 amino acids and has a calculated molecular mass of 69 kDa. It migrates as an approximately 60 kDa band in SDS-PAGE under reducing conditions.

### Formulation:

Supplied as sterile 50mM Tris, 500mM NaCl, 0.5mM PMSF, 0.5mM TCEP, 10% gly, pH 8.5

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

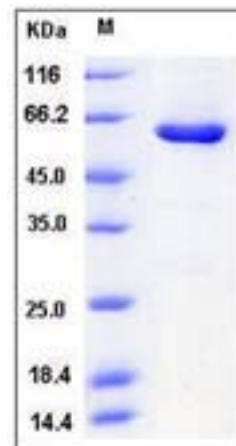
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Casein kinase II subunit alpha', also known as CSNK2A2 and CK2A2, is a member of the protein kinase superfamily, Ser/Thr protein kinase family and CK2 subfamily. Casein kinases are operationally defined by their preferential utilization of acidic proteins such as caseins as substrates. The alpha and alpha' chains contain the catalytic site. CSNK2A2 is a tetramer composed of an alpha chain, an alpha' and two beta chains. It is also component of a CK2-SPT16-SSRP1 complex composed of SSRP1, SUPT16H, CSNK2A1, CSNK2A2 and CSNK2B, the complex associating following UV irradiation. Protein kinase casein kinase II (Ck2) is a cyclic-AMP and calcium-independent serine-threonine kinase that is composed of two catalytic subunits (alpha and alpha') and two regulatory beta-subunits. Ck2 is not a casein kinase in vivo, but over 100 substrates are known. The highly conserved amino acid sequences of its subunits and their broad expression suggest that Ck2 may have a fundamental role in cell function. Ck2 has been implicated in DNA replication, regulation of basal and inducible transcription, translation and control of metabolism. The Ck2alpha and Ck2alpha' isoforms (products of the genes Csnk2a1 and Csnk2a2, respectively) are highly homologous, the reason for their redundancy and evolutionary conservation is unknown. CSNK2A2 may be a candidate gene for these inherited syndromes.

## References

1.Xu X. et al., 1999, Nat Genet. 23 (1):118-21. 2.Aasland M. et al., 2000, Anim Genet. 31 (2):131-4. 3.Escalier D. et al., 2003, Mol Reprod Dev. 66 (2):190-201.

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