

Active Recombinant Human CSNK2A2

Cat. No. CSNK2A2-169H Lot. No. (See product label)

SPECIFICATION

Species Human

Source E.coli

Description


Casein kinase 2 (CK2) is a ubiquitous pleiotropic proliferation-associated serine/threonine protein kinase. The enzyme is probably present in all eukaryotic cells, implying that it has fundamental cellular functions. Similar to protein kinase A, CK2 is a tetramer containing 2 α -prime subunits (or one of each) and 2 β -subunits. The subunit fills a regulatory role in the holoenzyme. The catalytic α -subunit corresponds to the C-subunit of PKA, the non-catalytic-subunit is unique and differs from the Rsubunit of PKA in all known features. The α -prime subunits are the catalytic subunits with distinct sequences and are encoded by different genes. Whereas the CK2 α -subunit is found ubiquitously in all cells and organs the CK2 α -prime subunit is preferentially found in brain and testis. Recently it was shown that the α -subunit is trifunctional: (i) it confers stability to the holoenzyme, (ii) it increases enzyme activity, and (iii) it determines substrate specificity. Disruption of the CK2 alpha prime gene in mice results in oligospermia and globozoospermia. Thus, the CK2 alpha prime gene may be a candidate gene for inherited abnormalities of sperm morphogenesis The human recombinant protein kinase CK2 was expressed in E. coli as a N-MBP fusion protein.

Usage For in vitro use only.

Form Supplied in 20 mM Tris-HCl pH 7.4, 200 mM NaCl, 1 mM EDTA, and 2 mM DTT.

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Activity	> 100.000 U/mg (1 Unit is defined as 1 picomole phosphate transferred to synthetic peptide RRRDDDSDDD per min at 37°C).
Purity	> 99% by SDS-PAGE.
Storage	Quality guaranteed for 12 months, Store at -80°C. Avoid freeze / thaw cycles.
GENE INFORMATION	
Gene Name	CSNK2A2 casein kinase 2, alpha prime polypeptide [Homo sapiens]
Synonyms	CSNK2A2; casein kinase 2, alpha prime polypeptide; CK2A2; CSNK2A1; FLJ43934; EC 2.7.11.1; CK II; Casein kinase II subunit alpha
Gene ID	1459
mRNA Refseq	NM_001896
Protein Refseq	NP_001887
MIM	115442
UniProt ID	P19784
Chromosome Location	16
Pathway	Adherens junction; Tight junction; Wnt signaling pathway
Function	ATP binding; nucleotide binding; protein N-terminus binding; protein serine/threonine kinase activity; transferase activity

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