

Recombinant Mouse CSNK2A1/CK2A1 Protein

Catalog Number: PKSM040468

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

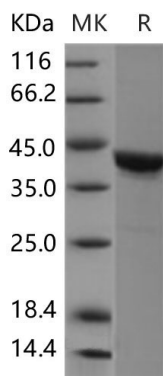
Description

Species	Mouse
Source	Baculovirus-Insect Cells-derived Mouse CSNK2A1/CK2A1 protein Met1-Gln391
Calculated MW	45.3 kDa
Observed MW	40 kDa
Accession	Q60737
Bio-activity	Kinase activity untested

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20mM Tris, 500mM NaCl, 10% glycerol, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Reconstitution	Please refer to the specific buffer information in the printed manual. Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

For Research Use Only

Casein kinase II subunit alpha, also known as CK II alpha, CSNK2A1 and CK2A1, is a member of the protein kinase superfamily, Ser / Thr protein kinase family and CK2 subfamily. Casein kinase II (CSNK2A1) is a serine / threonine protein kinase that phosphorylates acidic proteins such as casein. This kinase is composed of an alpha, an alpha-prime, and two beta subunits. The alpha subunits contain the catalytic activity while the beta subunits undergo autophosphorylation. Casein kinase II (CSNK2A1) is a constitutively active, ubiquitously expressed serine / threonine protein kinase that is thought to have a regulatory function in cell proliferation, cell differentiation and apoptosis. CSNK2A1 functions as a tetrameric complex consisting of two regulatory beta-subunits and two catalytic units (alpha and alpha') in a homomeric or heteromeric conformation. Whilst the alpha- and alpha'-subunits are catalytically identical, proteins that regulate CSNK2A1, such as cdc2 and Hsp90, preferentially bind to the alpha and not the alpha'-subunit. CSNK2A1 can phosphorylate a number of key intracellular signaling proteins implicated in tumor suppression (p53 and PTEN) and tumorigenesis (myc, jun, NF-kappaB). CSNK2A1 is also thought to influence Wnt signaling via beta-catenin phosphorylation and the PI 3-K signaling pathway via the phosphorylation of Akt.