



Recombinant Protein Technical Manual

Recombinant Mouse CSNK2A1/CK2A1 Protein

RPES1566

Product Data:

Product SKU: RPES1566

Size: 20µg

Species: Mouse

Expression host: Baculovirus-Insect Cells

Uniprot: Q60737

Protein Information:

Molecular Mass: 45.3 kDa

AP Molecular Mass: 40 kDa

Tag:

Bio-activity:

Purity: > 95 % as determined by 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 or dry ice.

Formulation: Lyophilized from sterile 20mM Tris, 500mM NaCl, 10% glycerol, pH 7.4

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Csnk2a1-rs4

Immunogen Information:

Sequence: Met1-Gln391

Background:

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.