

Recombinant Mouse CHK1/CHEK1 Protein (His & GST Tag)

Catalog No. PKSM040306

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

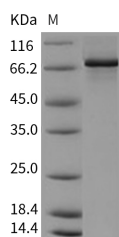
Description

Synonyms	C85740;Chk1;rad27
Species	Mouse
Expression Host	Baculovirus-Insect Cells
Sequence	Met1-Thr476
Accession	O35280-1
Calculated Molecular Weight	82.2 kDa
Observed molecular weight	78 kDa
Tag	N-His-GST
Bioactivity	Kinase activity untested

Properties

Purity	> 90 % 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, pH 8.5, 3mM DTT, 10% glycerol
Reconstitution	Not Applicable

Data



> 90 % as determined by reducing SDS-PAGE.

Background

CHK1 / CHEK1 contains 1 protein kinase domain and belongs to the protein kinase superfamily, CAMK Ser/Thr protein kinase family, NIM1 subfamily. It is a member of checkpoint kinases (Chks). Chks Checkpoint kinases (Chks) are serine/threonine kinases that are involved in the control of the cell cycle. There are two subtypes of chks that have so far been identified, CHK1 / CHEK1 and Chk2. They are essential components to delay cell cycle progression in normal and damaged cells and can act at all three cell cycle checkpoints. Chks are activated by phosphorylation. ATR kinase

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phosphorylates CHK1 / CHEK1 in response to single strand DNA breaks and ATM kinase phosphorylates Chk2 in response to double strand breaks. Chks phosphorylate Cdc25 phosphatase at Ser216, which leads to Cdc25 sequestration in the cytoplasm. Chks have a role in the physiological stress of hypoxia/reoxygenation. CHK1 / CHEK1 is required for checkpoint mediated cell cycle arrest in response to DNA damage or the presence of unreplicated DNA. CHK1 / CHEK1 may also negatively regulate cell cycle progression during unperturbed cell cycles.

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