Recombinant Human CHK1/CHEK1 Protein (GST Tag)

Catalog Number: PKSH030410

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

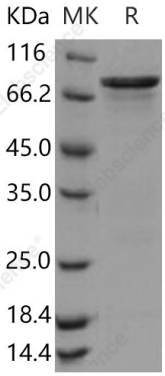
Description

Species	Human
Source	Baculovirus-Insect Cells-derived Human CHK1/CHEK1 protein Met 1-Thr476, with an N-terminal GST
Calculated MW	80.7 kDa
Observed MW	80.7 kDa
Accession	AAM78553.1
Bio-activity	The specific activity was determined to be 32 nmol/min/mg using CHKtide peptide (KKKVSRSGLYRSPSMPENLNRPR) as substrate.

Properties

Purity	> 90% as determined by reducing SDS-PAGE.
Concentration	Subject to label value.
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 20 mM Tris, 500 mM NaCl, pH 7.4, 10% glycerol, 2 mM GSH

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 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 DN A. CHK1/CHEK1 may also negatively regulate cell cycle progression during unperturbed cell cycles.

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