

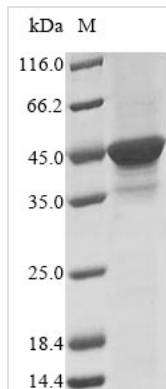


Recombinant Dictyostelium discoideum DNA-dependent protein kinase catalytic subunit (dnapkcs), partial

Product Code	CSB-EP703860DKK
Relevance	Serine/threonine-protein kinase that acts as a molecular sensor for DNA damage. Is recruited to DNA ends by the Ku70/Ku80 heterodimer and is involved in DNA non-homologous end joining (NHEJ) required for double-strand break (DSB) repair and V(D)J recombination. This activity is only apparent when DNA damage is administered in G1 phase of the cell cycle. Required for efficient signaling of DNA double-stranded breaks via phosphorylation of H2AX during G1.
Abbreviation	Recombinant Dictyostelium discoideum dnapkcs protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q54UC0
Product Type	Recombinant Protein
Immunogen Species	Dictyostelium discoideum (Slime mold)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	ELDYPFLIKGGEDLRLDQRIQQLFGIMNEILKRDTACNKRSLNVTYQVVPMTS KVGIIIEWLNDTKPLREILEEQLAHQKTPRSNVSISKLESTKYHNDWINSFAKYL KPNSPVGPLYQQMFIHATRDDCAKKLEKQHSKVPENLLQNGIWSLSSSPESYL FIRNSFARSLASFVCSYVIGIGDRHLENFLISQRDGRIGIDFGHAFGTATQFLP IPELMPFRLTRQFTSFLRPLDSVGLLNHNMTYTLTALQNQKEILLTTMDVVFKE PLLDWSKLATRLVKEQKGHPKDTKNVWFQKQIKIQAKKKLELVNPAYITLEELS GSVHSGLPYEKALSE
Research Area	Others
Source	E.coli
Target Names	dnapkcs
Protein Names	Recommended name: DNA-dependent protein kinase catalytic subunit Short name= DNA-PK catalytic subunit Short name= DNA-PKcs EC= 2.7.11.1
Expression Region	3910-4250aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-tagged and C-terminal Myc-tagged
Mol. Weight	46.1 kDa


Protein Length

Partial

Image


(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

Constructing a plasmid encoding the Dictyostelium discoideum (Slime mold) dnapkcs protein (3910-4250aa) initiates the general approach for generating the recombinant Dictyostelium discoideum (Slime mold) dnapkcs protein. Transformation of the plasmid into e.coli cells obtains the plasmid-containing e.coli cells, which are cultured and induced for protein expression. A N-terminal 10xHis tag and C-terminal Myc tag is fused to the protein. Subsequently, the protein is purified through affinity purification, and SDS-PAGE analysis is undertaken to confirm the presence and assess the purity of the protein. The protein's purity exceeds 85%.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.