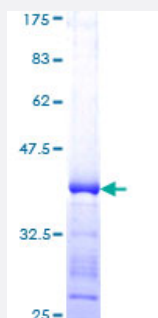


PRKDC (Human) Recombinant Protein (Q01)

Catalog # H00005591-Q01

Size 25 ug, 10 ug

Applications



Specification

Product Description	Human PRKDC partial ORF (NP_008835, 4019 a.a. - 4128 a.a.) recombinant protein with GST-tag at N-terminal.
Sequence	KMLKKGGSWIQEINVAEKNWYPRQKICYAKRKLAPANPAVITCDELLLGHEKAPAFRDYVAVARG SKDHNIRAQEPESGLSEETQVKCLMDQATDPNILGRTWEGREPWM
Host	Wheat Germ (in vitro)
Theoretical MW (kDa)	37.84
Preparation Method	in vitro wheat germ expression system
Purification	Glutathione Sepharose 4 Fast Flow
Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — PRKDC

Entrez GeneID [5591](#)

GeneBank Accession# [NM_006904](#)

Protein Accession# [NP_008835](#)

Gene Name PRKDC

Gene Alias DNA-PKcs, DNAPK, DNPK1, HYRC, HYRC1, XRCC7, p350

Gene Description protein kinase, DNA-activated, catalytic polypeptide

Omim ID [600899](#)

Gene Ontology [Hyperlink](#)

Gene Summary The PRKDC gene encodes the catalytic subunit of a nuclear DNA-dependent serine/threonine protein kinase (DNA-PK). The second component is the autoimmune antigen Ku (MIM 152690), which is encoded by the G22P1 gene on chromosome 22q. On its own, the catalytic subunit of DNA-PK is inactive and relies on the G22P1 component to direct it to the DNA and trigger its kinase activity; PRKDC must be bound to DNA to express its catalytic properties.[supplied by OMIM]

Other Designations hyper-radiosensitivity of murine scid mutation, complementing 1

Publication Reference

- [Mutual regulation between DNA-PKcs and snail1 leads to increased genomic instability and aggressive tumor characteristics.](#)

Pyun BJ, Seo HR, Lee HJ, Jin YB, Kim EJ, Kim NH, Kim HS, Nam HW, Yook JI, Lee YS.

Cell Death and Disease 2013 Feb; 4:e517.

Application: Func, Human, NCIH460 cells, DLD-1 cells

Pathway

- [Cell cycle](#)
- [Non-homologous end-joining](#)

Disease

- [Adenocarcinoma](#)
- [Ataxia telangiectasia](#)
- [Bone Neoplasms](#)
- [Brain Neoplasms](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Carcinoma](#)
- [Central Nervous System Neoplasms](#)
- [DNA Damage](#)
- [Genetic Predisposition to Disease](#)
- [Glioma](#)
- [Head and Neck Neoplasms](#)
- [Hematologic Diseases](#)
- [Hodgkin Disease](#)
- [Kidney Neoplasms](#)

- [Lung Neoplasms](#)
- [Lymphoma](#)
- [Lymphoproliferative Disorders](#)
- [Multiple Sclerosis](#)
- [Neoplasms](#)
- [Occupational Diseases](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Thyroid Neoplasms](#)
- [Tobacco Use Disorder](#)
- [Urinary Bladder Neoplasms](#)
- [Waldenstrom Macroglobulinemia](#)
- [Werner syndrome](#)