# Mouse DNA-dependent protein kinase catalytic subunit (PRKDC) ELISA Kit

Catalog No: #EK8238

Package Size: #EK8238-1 48T #EK8238-2 96T

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## Description

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| Product Name | Mouse DNA-dependent protein kinase catalytic subunit (PRKDC) ELISA Kit |
| Brief Description | ELISA Kit |
| Applications | ELISA |
| Species Reactivity | Mouse (Mus musculus) |
| Other Names | DNA-PKcs; DNAPK; DNPK1; HYRC; HYRC1; XRCC7; p350; hyper-radiosensitivity of murine scid mutation; complementing 1 |
| Accession No. | P97313 |
| Uniprot | P97313 |
| GeneID | 19090; |
| Storage | The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition.<br>The loss rate was determined by accelerated thermal degradation test. Keep the kit at 37C for 4 and 7 days, and compare O.D.values of the kit kept at 37C with that of at recommended temperature. (referring from China Biological Products Standard, which was calculated by the Arrhenius equation. For ELISA kit, 4 days storage at 37C can be considered as 6 months at 2 - 8C, which means 7 days at 37C equaling 12 months at 2 - 8C). |

## Application Details

Detect Range:0.312-20 ng/mL

Sensitivity:0.105 ng/mL

Sample Type:Serum, Plasma, Other biological fluids

Sample Volume: 1-200 µL

Assay Time:1-4.5h

Detection wavelength:450 nm

## Product Description

Detection Method:SandwichTest principle:This assay employs a two-site sandwich ELISA to quantitate PRKDC in samples. An antibody specific for PRKDC has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anyPRKDC present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for PRKDC is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of PRKDC bound in the initial step. The color development is stopped and the intensity of the color is measured.Product Overview: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, 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. The PRKDC protein showed similarity to phosphatidylinositol 3-kinase family members involved in cell cycle control, DNA repair, and DNA damage responses, and had no detectable activity towards lipids. Other PI kinase proteins involved in DNA repair include FKBP12 and the ataxia-telangiectasia gene (ATM), in which mutations lead to genomic instability and predisposition to cancer and ataxia.

Note: This product is for in vitro research use only