

# Mouse 3-phosphoinositide-dependent protein kinase 1 (PDPK1) ELISA Kit



Catalog No: #EK8598

Orders: order@signalwayantibody.com

Package Size: #EK8598-1 48T #EK8598-2 96T

Support: tech@signalwayantibody.com

## Description

Product Name	Mouse 3-phosphoinositide-dependent protein kinase 1 (PDPK1) ELISA Kit
Brief Description	ELISA Kit
Applications	ELISA
Species Reactivity	Mouse ( <i>Mus musculus</i> )
Other Names	MGC20087; MGC35290; PDK1; PRO0461; PkB kinase like gene 1 Pkb-like 1 protein kinase
Accession No.	Q9Z2A0
Uniprot	Q9Z2A0
GeneID	18607;
Storage	<p>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.</p> <p>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).</p>

## Application Details

Detect Range:0.156-10 ng/mL

Sensitivity:0.055 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 PDPK1 in samples. An antibody specific for PDPK1 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anyPDPK1 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for PDPK1 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 PDPK1 bound in the initial step. The color development is stopped and the intensity of the color is measured.**Product Overview:**PDPK1 is a master kinase, which is crucial for the activation of AKT/PKB and many other AGC kinases including PKC, S6K, SGK. An important role for PDPK1 is in the signalling pathways activated by several growth factors and hormones including insulin signalling. Mice lacking PDPK1 die during early embryonic development, indicating that this enzyme is critical for transmitting the growth-promoting signals necessary for normal mammalian development.

Mice that are deficient in PDPK1 have a 40% decrease in body mass, mild glucose intolerance, and are resistant to cancer brought about by hyperactivation of the PI3K pathway (PTEN +/-).The structure of PDPK1 can be divided into two domains; the kinase or catalytic domain and the PH domain.

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Note: This product is for in vitro research use only