

# Rat 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase zeta-1 (PLCZ1) ELISA Kit

Catalog No: #EK8448

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Package Size: #EK8448-1 48T #EK8448-2 96T

## Description

Product Name	Rat 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase zeta-1 (PLCZ1) ELISA Kit
Brief Description	ELISA Kit
Applications	ELISA
Species Reactivity	Rat ( <i>Rattus norvegicus</i> )
Other Names	MGC149685; NYD-SP27; PLCzeta; PI-phospholipase C zeta 1 testis-development related NYD-SP27
Accession No.	Q5FX52
Uniprot	Q5FX52
GeneID	497197;
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:0.312-20 ng/mL

Sensitivity:0.117 ng/mL

Sample Type:Serum, Plasma, Other biological fluids

Sample Volume: 1-200  $\mu$ L

Assay Time:1-4.5h

Detection wavelength:450 nm

## Product Description

**Detection Method:**Sandwich Test principle:This assay employs a two-site sandwich ELISA to quantitate PLCZ1 in samples. An antibody specific for PLCZ1 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any PLCZ1 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for PLCZ1 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 PLCZ1 bound in the initial step. The color development is stopped and the intensity of the color is measured.

**Product Overview:**PLCz1 Expressed specifically in testis. Weakly expressed in pancreatic-duct cells. Up-regulated in pancreatic-duct cells from patients with cystic fibrosis.The production of the second messenger molecules diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3) is mediated by activated phosphatidylinositol-specific phospholipase C enzymes.

In vitro, hydrolyzes PtdIns(4,5)P2 in a Ca<sup>2+</sup>-dependent manner. Triggers intracellular Ca<sup>2+</sup> oscillations in oocytes solely during M phase and is involved in inducing oocyte activation and initiating embryonic development up to the blastocyst stage. Is therefore a strong candidate for the egg-activating soluble sperm factor that is transferred from the sperm into the egg cytoplasm following gamete membrane fusion.

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Note: This product is for in vitro research use only