



**User's Manual**

# Phosphatidylinositol 4,5-bisphosphate ELISA Kit



DEIA-XYZ24



96T



This product is for research use only and is not intended for diagnostic use.

For illustrative purposes only. To perform the assay the instructions for use provided with the kit have to be used.

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## PRODUCT INFORMATION

### Intended Use

The Phosphatidylinositol 4,5-bisphosphate ELISA Kit detects the amount PI(4,5)P2 extracted from cells by means of a competitive 96-well ELISA assay.

### General Description

The assay is a competitive ELISA in which the signal is inversely proportional to the amount of PI(4,5)P2 produced. Once PI(4,5)P2 has been extracted from cell samples, it is first incubated with a PI(4,5)P2 detector protein, then added to the PI(4,5)P2-coated microplate for competitive binding. A peroxidase-linked secondary detection reagent and colorimetric substrate is used to detect the PI(4,5)P2 detector protein binding to the plate. The colorimetric signal is inversely proportional to the amount of PI(4,5)P2 extracted from cells. Phosphatidylinositol 4,5-bisphosphate, or PI(4,5)P2, is a ubiquitous lipid shown to play a central role in a variety of cell functions including the PKB/Akt pathway leading to cell growth, motility, inflammation, and apoptosis. PI(4,5)P2 is a substrate for class I phosphoinositide 3-kinase (PI3-K) and the product of PTEN phosphatase activity.

### Reagents And Materials Provided

1. PI(4,5)P2 Coated Strip-well Detection Plate: 1 plate
2. PI(4,5)P2 Standard, diC16: 1 vial
3. PI(4,5)P2 Detector: 2 vials
4. Secondary Detector: 1 vial
5. PBS Tablet: 1 tablet
6. 10x PBS-T: 1 bottle of 20 mL
7. Protein Stabilizer: 1 vial
8. TMB Solution: 1 bottle
9. 1 N H2SO4 Stop Solution: 1 bottle
10. Colored 96-well polypropylene U-bottom plate: 1 plate
11. Clear acetate sheet, 1 side adhesive: 2

### Materials Required But Not Supplied

1. Extracted PI(4,5)P2 samples
2. Buffers and solvents for PI(4,5)P2 extractions: Trichloroacetic Acid, EDTA, Methanol, Chloroform, and 12 N HCl
3. 450 nm absorbance plate reader

### Storage

2-8°C and -20°C

## Detection Range

1250 to 0.4 pmol PI(4,5)P<sub>2</sub>