

# Pyruvate Dehydrogenase Activity Assay

**A plate based simple, sensitive colorimetric assay to measure Pyruvate Dehydrogenase**

**(PDH) activity with a sensitivity limit below 50  $\mu$ U.**  
Pyruvate Dehydrogenase (PDH), a multi-enzyme complex, catalyzes the oxidative decarboxylation of pyruvate, producing acetyl-CoA, NADH and CO<sub>2</sub>. PDH connects the TCA cycle and oxidative phosphorylation to glycolysis, gluconeogenesis, and lipid and amino acid metabolic pathways. The activity of PDH is regulated through reversible phosphorylation of the E1- $\alpha$  subunit at specific serine sites. Phosphorylation, catalyzed by PDH kinases 1-4, decreases PDH activity. Dephosphorylation, catalyzed by PDP1 and 2, restores PDH activity. Multiple regulatory signals control PDH activity. Dysregulation is associated with metabolic disorders like diabetes, obesity and cancer. Genetic defects in the PDH complex lead to lactic acidosis and Leigh's disease among others. AkrisBio's Pyruvate Dehydrogenase Activity Assay is a simple, sensitive way to measure PDH activity with a sensitivity limit below 50  $\mu$ U.

## Ordering Information

[Order Online »](#)

|             |           |
|-------------|-----------|
| AKR-MA-0166 | 100 wells |
|-------------|-----------|

## Manuals, SDS & CofA

[View Online »](#)

## Handling & Storage

Long Term Storage -20°C

Shipping Blue Ice

**Regulatory Status** RUO - Research Use Only

## Product Details

Application Colorimetric detection

Species Reactivity Species independent

**Technical Info / Product Notes** For the Original Manufacturer's data sheet please [click here](#).



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