CREATIVE BIOMART®
Assay Kit

# Pyruvate Dehydrogenase (PDH) Activity Colorimetric Assay Kit

## Product Information

**Cat**

Kit-2301

**Cat.No.**

Kit-2301

**Product Overview**

Pyruvate Dehydrogenase (PDH) (EC 1.2.4.1) has a vital role in carbohydrate metabolism. It forms a well-characterized enzyme complex with dihydrolipoyl transacetylase (E2) and dihydrolipoyl dehydrogenase (E3). PDH converts pyruvate into acetyl-CoA in the presence of NAD and CoA, and links glycolysis to the citric acid cycle. PDH activity is inhibited by high intracellular ratios of ATP/ADP, NADH/NAD or Acetyl-CoA/CoA. In humans, PDH deficiency reduces mitochondrial function and is linked to neurodegenerative diseases. PDH deficiency is X-linked; it results in 2 forms of abnormality: a metabolic form (lactic acidosis) and a neurological form (seizure and/or neuropathological spasm). Recent studies show that PDH is a target of oncogene-induced senescence; activation of PDH enhances pyruvate utilization and increases respiration and redox stress. PDH assay kit provides a quick and easy way for monitoring PDH activity in various samples. In the assay, PDH converts pyruvate into an intermediate, which reduces the developer to a colored product with strong absorbance at 450 nm. The assay is simple, sensitive and can detect pyruvate dehydrogenase activity lower than 0.1 mU in a variety of samples.

**Applications**

Measurement of pyruvate dehydrogenase activity in various tissues/cellsAnalysis of cell signaling pathway

**Storage**

-20°C

**Shipping**

Gel Pack

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# Pyruvate Dehydrogenase (PDH) Activity Colorimetric Assay Kit

| **Size** |
| --- |
| 100 assays |
| **Kit Components** |
| PDH Assay Buffer; PDH Substrate (Lyophilized); PDH Developer (Lyophilized); NADH Standard (Lyophilized); PDH Positive Control |
| **Detection method** Absorbance (450 nm) |
| **Features & Benefits** |
| Simple, rapid & convenient; can measure pyruvate dehydrogenase activity lower than 0.1 mU in a variety of samples. |

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