CREATIVE BIOMART®
Assay Kit

# ADP Assay Kit (Fluorometric)

## Product Information

**Cat**

Kit-1022

**Common Name**

ADP

**Cat.No.**

Kit-1022

**Description**

Adenosine diphosphate (ADP) is an organic molecule that plays a critical role in cellular metabolism and energy transfer reactions. ADP is a product of ATP dephosphorylation and it can be rephosphorylated to ATP. These dephosphorylations and rephosphorylations occur via various phosphorylases and kinases. ADP is stored in platelets and can be released to interact with variety of purinergic receptors. ADP levels regulate several enzymes involved in intermediary metabolism. ADP conversion to ATP primarily occurs within the mitochondrion and chloroplast although several such processes also occur in the cytoplasm. Conventionally, ADP levels are measured by luciferase/luciferin mediated assays after ADP is converted to ATP. However, the luciferase system is unstable and luminescence equipment is generally not available in most laboratories. PicoProbe; ADP Assay Kit provides a sensitive fluorescence method to detect ADP. The kit is suitable for measuring ADP levels in various samples, including the ones that contain reducing substances, which may interfere with oxidase-based assays. In this assay, ADP, in the presence of ADP Enzyme Mix is converted to an intermediate, which reacts with the fluorescent probe to generate a strong stable signal at Ex/Em = 535/587 nm. PicoProbe; ADP Assay kit provides an ultrasensitive, fast and high-throughput ready assay for detection of as low as 10 pmol or 0.05 μM of ADP in samples.

**Applications**

Measurement of ADP in various tissues/cellsAnalysis of metabolism and cell signaling in various cell types

**Storage**

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# ADP Assay Kit (Fluorometric)

-20°C

**Shipping**

Gel Pack

**Size**

100 assays

**Kit Components**

ADP Assay Buffer; ADP Enzyme Mix I; ADP Enzyme Mix II; ADP Developer; PicoProbe; (in DMSO); ADP Standard

**Target Species**

Mammalian

**Detection method** Fluorometric analysis (Ex/Em = 535/587 nm)

**Features & Benefits**

Ultrasensitive, Simple, HTP adaptable fluoromotericassay kit for ADP measurement.; Can detect as low as 10 pmol or 0.05 μM of ADP; Detection method- Fluorometric analysis (Ex/Em = 535/587 nm); Applications- Detection of NOS activity; Sample Type: Tissue or cell extracts

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