CREATIVE BIOMART®
Assay Kit

ADP Colorimetric/Fluorometric Assay Kit

Product Information

Cat.No. Kit-0057

Product Overview

Assay for the quantification of cellular ADP

Size

1 kit/100 assays

Description

ADP is a product of ATP dephosphorylation and it can be rephosphorylated to ATP. De-phosphorylation and rephosphorylation occur via various phosphatases, phosphorylases and kinases. ADP is stored in platelets and can be released to interact with a 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 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 not generally available in most laboratories. The newly designed ADP Assay Kit provides a convenient colorimetric and fluorometric means to measure ADP level. In the assay, ADP is converted to ATP and pyruvate. The generated pyruvate can be quantified by colorimetric (λmax = 570 nm) or fluorometric method (Ex/Em 535/587 nm). The assay is simple, sensitive, stable and high-throughput adaptable. The assay can detect as low as 1 μM ADP in biological samples.

Applications

In the assay, ADP is converted to ATP and pyruvate. The assay can detect as low as 1 μM ADP in biological samples.

Target Species

Mammal

Usage

Tel: 1-631-559-9269 1-516-512-3133
Email:info@creative-biomart.org
Fax:1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

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For research use only. Not intended for any diagnostic or therapeutic purpose.

Storage

Store at -20°C. Product has an expected shelf life of 12 months.

Kit Components

ADP Assay Buffer;ADP Probe (lyophilized);DMSO (anhydrous);ADP Converter;ADP Developer Mix;ADP Standard (1 μmole lyophilized)

Detection method Colorimetric (λmax = 570 nm) or fluorometric (Ex/Em = 535/587 nm)

Compatible Sample Types

Cell and Tissue lysates, culture media, urine, plasma and serum, as well as many other biological fluids

Features & Benefits

1. Simple procedure; takes less than 1 hour.2. Fast and convenient.3. The assay is sensitive, stable and high-throughput adaptable.

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