CREATIVE BIOMART®
Assay Kit

ALDH Activity Fluorometric Assay Kit

Product Information

Cat.No. Kit-0075

Product Overview

ALDH Activity Assay Kit (Fluorometric) is a quantitative fluorometric determination of ALDH activity.

Description

The NAD-dependent Aldehyde Dehydrogenase (ALDH) plays a vital role in cellular detoxification. It oxidizes various aldehydes and generates the corresponding carboxyolic acid. ALDH have been found in every cellular compartment. Based on its structure and function, ALDH comprises 3 major classes in mammals: Class 1 and Class 3 (the tumor form) are located in the cytosol and include both constitutive and induced forms; Class 2 is located in the mitochondria and only exists as the constitutive form. In humans, the ALDH superfamily consists of 19 genes. The mutation of ALDH genes (loss of function) causes human diseases such as Type II hyperprolinemia, pyridoxine-dependent seizure and hyperammonemia. Recent studies show that increased ALDH activity leads to several types of malignancies, serves as a cancer stem cell marker and correlates with poor prognosis. Therefore the early detection of ALDH activity levels can be prognostic and guide the therapeutic strategies. ALDH Activity Assay Kit (Fluorometric) is a robust tool to quantify ALDH enzymatic activity. In this assay, acetaldehyde is oxidized by ALDH to form the NADH which couples with the PicoProbe to generate a potent fluorescence (Ex/Em = 535/587). The ALDH fluorometric assay kit is 10 times more sensitive than the ALDH colorimetric assay and can detect< 0.05 mU ALDH activity (based on our unit definition) in a variety of samples.

Target Species

Mammals

Usage

For research use only (RUO)

Storage

Store kit at -20°C, protect from light. Let ALDH Assay Buffer warm to room temperature before use. Briefly centrifuge all small vials prior to opening.

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

CREATIVE BIOMART®
Assay Kit

ALDH Activity Fluorometric Assay Kit

Kit Components

ALDH Assay Buffer. WM 25 mlAcetaldehyde. Purple 0.5 mlPicoProbe (in DMSO). Blue 0.4 mlALDH Substrate Mix (Lyophilized). Red 1 vialALDH Positive Control (Lyophilized). Green 1 vialNADH Standard (0.5 μmol, Lyophilized). Yellow 1 vial

Detection method Fluorometric

Compatible Sample Types

Biological Fluid, Cell Lysate, Cell Culture Supernatant, Plasma, Serum, Tissue Culture Supernatant

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