CREATIVE BIOMART®
Assay Kit

Isopropanol Dehydrogenase Colorimetric Activity Assay Kit

Product Information

Cat.No. Kit-2133

Product Overview

Isopropanol Dehydrogenase Activity Colorimetric Assay Kit provides a convenient tool for sensitive detection of the ADH1- NADP in a variety of samples. In this assay, Isopropanol gets converted to Acetone and NADPH in the presence of NADP+ . This results in the development of colour in the presence of the developer. This colour is proportional to the ADH1-NADP levels in the sample and can be measured at λ = 450 nm. This assay detects ADH1-NADP activity as low as 0.001 mU in samples.

Size

100 assays

Description

NADP-dependent Isopropanol Dehydrogenase (ADH1-NADP, EC:1.1.1.80) belongs to the superfamily of alcohol dehydrogenases (Alcohol DHs, ADHs, EC 1.1.1.1) with a preference for medium chain secondary alcohols, such as 2-butanol and isopropanol. Isopropanol dehydrogenase facilitates the conversion between secondary alcohols to aldehydes and ketones with the reduction of NADP+ to NADPH.

Applications

Measurement of Isopropanol Dehydrogenase (ADH1-NADP) activity in various cells.Measurement of NADP-dependent alcohol dehydrogenases" activity with broad substrate specificity in various tissues/cells.

Target Species

Mammalian samples. Bacterial, yeast or protozoan samples: Entamoeba histolytica, Clostridium beijerinckii, Mycoplasma pneumonia, etc.

Storage

Store the kit at -20°C, protected from light. Briefly centrifuge vials prior to opening. Read the entire

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protocol before performing the assay.ADH1-NADP Assay Buffer: Warm to room temperature before use. Store at either 4°C or -20°C.ADH1-NADP Developer: Reconstitute the Developer with 0.9 ml of ddH2O. Pipette up and down several times to completely dissolve the pellet (Do not vortex). Aliquot and store at –20°C. Keep on ice while in use. Use within two months.ADH1-NADP Positive Control: Dilute the Positive Control with 100 µl Assay Buffer and mix thoroughly. Aliquot and store directly at -20°C. Keep on ice while in use. Use within two months.NADPH Standard: Reconstitute NADPH Standard with 200 µl pure DMSO to generate 1 mM NADPH Standard solution. Aliquot and store at –20°C. Keep on ice while in use. Use within two months.

Kit Components

ADH1-NADP Assay Buffer: 25 mlADH1-NADP Substrate: 1 mlADH1-NADP Developer: 1 vialADH1-NADP Positive Control: 10 µlNADPH Standard: 1 vial

Detection method Absorbance (450 nm)

Compatible Sample Types

• Bacterial, yeast or protozoan samples: Entamoeba histolytica, Clostridium beijerinckii, Mycoplasma pneumonia, etc.• Animal tissues: such as liver, pancreas, small intestine, etc. • Animal cells.

Features & Benefits

• Simple, colorimetric protocol.• Detects ADH1-NADP activity as low as 0.001 mU in samples.• Compatible with multiple sample types.

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