CREATIVE BIOMART®
Assay Kit

D-2-Hydroxyglutarate Colorimetric Assay Kit

Product Information

Cat.No. Kit-2120

Product Overview

s D-2-Hydroxyglutarate Assay Kit provides a convenient method to detect D2HG in biological samples. In this assay, D-2-Hydroxyglutarate is oxidized to a-Ketoglutarate in the presence of D2HG Enzyme and Substrate Mix. The intermediate reduces the probe to a colored product with strong absorbance at 450 nm. This absorbance is proportional to the amount of D2HG present in the samples. This assay kit is fast, sensitive, easy to use and high-through adaptable,It can measure D-2-Hydroxyglutarate levels less than 10 µM in various samples.

Size

100 assays

Description

In eukaryotic cells, Isocitrate Dehydrogenase (IDH1, IDH2 and IDH3) catalyzes the interconversion of Isocitrate and a-Ketoglutarate. In human cancers, an IDH mutation causes a gain-of-function, which reduces its affinity for isocitrate and facilitates the conversion of a- ketoglutarate to D-2-Hydroxyglutarate in the presence of NADP. D-2-Hydroxyglutarate (D2HG) is present at low level in normal cells and tissues, but is significantly elevated in metabolic diseases and various cancers. Therefore, detection of elevated D2HG is important for early diagnosis, prognosis and the development of therapeutic strategies against these maladies.

Applications

Measurement of D2HG level in various cell/tissues/biological fluids.

Target Species

Mammalian

Storage

Store kit at -20°C, protected from light. Bring the D2HG Assay Buffer to room temperature before use. Briefly centrifuge all small vials prior to opening. Read the entire protocol before the assay.

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Kit Components

D2HG Assay Buffer: 20 mlD2HG Enzyme: 1 vialD2HG Substrate Mix: 1 vialD2HG Standard: 1 vial

Detection method Absorbance (OD = 450 nm)

Compatible Sample Types

• Adherent or suspension Cells: e.g. 3T3, HepG2, Jurkat cells.• Tissues: e.g. Rat Liver, Rat Kidney, etc.• Biological Samples: Urine.

Features & Benefits

• Simple, fast, HTP adaptable and convenient assay• Can measure D2HG levels as low as 10 µM in various samples.

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