CREATIVE BIOMART®
Assay Kit

D-2-Hydroxyglutarate Dehydrogenase Fluorometric Assay Kit

Product Information

Cat.No. Kit-2108

Product Overview

D-2-Hydroxyglutarate Dehydrogenase Assay kit provides a quick and easy method for monitoring D2HGDH activity in a wide variety of samples. In this assay, D2HGDH converts D-2-Hydroxyglutarate into 2-Oxoglutarate and NADH, which further reduces PicoProbe to generate an intense fluorescent product (Ex/Em = 535/587 nm). This kit is simple, sensitive and high-throughput adaptable and can detect as low as 4 µU/µl of D2HGDH activity.

Size

100 assays

Description

D-2-Hydroxyglutarate Dehydrogenase (D2HGDH: EC 1.1.99.2) is a mitochondrial enzyme which catalyzes the conversion of D-2- Hydroxyglutarate into 2-Oxoglutarate. In humans, mutation of D2HGDH gene could reduce D2HGDH activity which will cause the D-2- Hydroxyglutarate accumulation in body fluids. Increased D-2-Hydroxyglutarate level in body fluids leads to D-2-Hydroxyglutaric Aciduria, a neurometabolic disorder characterized as developmental delay, epilepsy, hypotonia, and dysmorphic features.

Applications

Measurement of D2HGDH activity in purified enzyme preparations, tissues and cells

Target Species

Mammalian

Storage

Store kit at -20°C, protected from light. Briefly centrifuge small vials prior to opening. Read entire protocol before performing the assay.D2HGDH Assay Buffer: Bring to room temperature before use. Store at 4°C or -20°C.PicoProbe: Before use, thaw at room temperature. Store at -20°C. Use within two months.D2HGDH Substrate: Store at -20°C, stable for 6 months.D2HGDH Developer: Reconstitute

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

D-2-Hydroxyglutarate Dehydrogenase Fluorometric Assay Kit

with 220 µl Assay Buffer. Pipette up and down to dissolve completely. Store at -20°C. Use within two months.D2HGDH Positive Control: Reconstitute with 100 µl Assay Buffer and mix thoroughly. Aliquot and store at -70°C. Avoid freeze/thaw. Use within two months. Keep on ice while in use.NADH Standard: Reconstitute with 200 μl dH2O to generate 1 mM (1 nmol/μl) NADH Standard solution. Aliquot and store at –20°C. Use within two months. Keep on ice while in use.

Kit Components

D2HGDH Assay Buffer: 20 mlPicoProbe (in DMSO): 0.2 mlD2HGDH Substrate: 0.4 ml D2HGDH Developer: 1 VialD2HGDH Positive Control: 1 VialNADH Standard: 1 Vial

Detection method Fluorescence (Ex/Em=535/587 nm)

Compatible Sample Types

Animal tissues: liver, kidney, heart, brain, etc.Cell culture: adherent or suspension cells

Features & Benefits

• Rapid, sensitive and convenient• The kit measures total Activity of D-2-Hydroxyglutatare Dehydrogenase Activity with limit of quantification 4 µU/µl using recombinant D2HGDH

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