

## D-2-Hydroxyglutarate Dehydrogenase from Acidaminococcus fermentans, Recombinant

Cat. No. NATE-1660

Lot. No. (See product label)

### Introduction

#### Description

D-2-hydroxyglutarate (D2HG) level is significantly increased in metabolic diseases and various cancers such as acute myeloid leukemia. Studies suggest that the detection of D2HG serves as a biomarker assay related to IDH (isocitrate dehydrogenase) mutations. D2HGDH is a special NAD-dependent enzyme which reacts with D2HG specifically and converts D2HG to  $\alpha$ -ketoglutarate. D2HGDH is a key enzyme to distinguish between two metabolites, D2HG and L-2-hydroxyglutarate (L2HG), during biomarker assays.

#### Synonyms

D-2-hydroxyglutarate dehydrogenase; D2HGDH; D2HGD

### Product Information

#### Species

Acidaminococcus fermentans

#### Source

E. coli

#### Form

Lyophilized in 50mM Tris, pH 8 without any additives.

#### EC Number

EC 1.1.99.39

#### Molecular Weight

39 kDa

#### Purity

> 99% by SDS - PAGE

#### Activity

> 90,000 mU/mg

#### Unit Definition

One unit is the amount of enzyme that reduces 1.0  $\mu$ mole of NAD<sup>+</sup> to NADH per min. at pH 8 at 37°C.)

### Usage and Packaging

#### Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-5 mg/ml. The solution can be diluted into other aqueous buffers and stored at -20°C for future use.

### Storage and Shipping Information

#### Storage

Can be stored at 4°C up to 2 weeks. For long term storage, aliquot and store at -20°C. Avoid repeated freezing and thawing cycles.