CREATIVE BIOMART®
Assay Kit

Oxalate Decarboxylase Activity Colorimetric Assay Kit

Product Information

Cat.No. Kit-0641

Product Overview

Oxalate Decarboxylase Activity Assay Kit (Colorimetric) is used to measure Oxalate Decarboxylase activity.

Description

Oxalate Decarboxylase (OXDC, EC 4.1.1.2) belongs to the cupin superfamily and is composed of two β-barrel domains. OXDC catalyzes the conversion of Oxalate into Formate and CO2 and plays an important role in stress response. In humans, high levels of oxalate can lead to various health problems including hyperoxaluria, kidney stones, and renal failure. Wood rotting fungi generates high levels of oxalate, causing rot in many crops including lettuce, soybean, dry bean, and tomato etc. Recent studies show that overexpression of OXDC in plants (e.g. tomato, soybean, lettuce, and tobacco) results in transgenic plants with resistance to fungal pathogenesis. Accurate measurement of Oxalate Decarboxylase activity is useful for a variety of therapeutic, diagnostic, and mechanistic studies. The Oxalate Decarboxylase Activity Assay Kit (Colorimetric) provides a quick and easy way to measure Oxalate Decarboxylase activity in various samples. In this assay, Oxalate Decarboxylase converts oxalate to formate, which subsequently converts a nearly colorless probe to a colored product with strong absorbance at 450 nm. The assay is simple, sensitive, high-throughput adaptable and can detect less than 20 μU of oxalate decarboxylase activity in a variety of samples.

Applications

Measurement of Oxalate Decarboxylase activity in various plant tissues.Analysis of cell signaling pathways such as glyoxylate and dicarboxylate metabolism

Target Species

Fungi, Plants

Usage

For research use only (RUO)

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Storage

Store the kit at -20°C, protected from light.

Kit Components

OXDC Assay Buffer I 20 mLOXDC Assay Buffer II 15 mLOXDC Substrate (Lyophilized) 1 vialOXDC Enzyme Mix (Lyophilized) 1 vialOXDC Probe (Lyophilized) 1 vialOXDC Positive Control 0.1 mLFormate Standard (100 mM) 0.1 mL

Detection method Colorimetric

Compatible Sample Types

Fungi, Plant tissues

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