

Product datasheet

Oxalate Decarboxylase Activity Assay Kit (Colorimetric)
ab196993

2 Images

Overview

Product name	Oxalate Decarboxylase Activity Assay Kit (Colorimetric)
Detection method	Colorimetric
Sample type	Tissue
Assay type	Enzyme activity
Species reactivity	Reacts with: Plants, Fungi
Product overview	Oxalate Decarboxylase Activity Assay Kit (Colorimetric) (ab196993) provides a quick and easy way to measure oxalate decarboxylase (OXDC) activity in a variety of plant and fungi samples. Oxalate is converted by OXDC to formate, which in turn converts a nearly colorless probe to a colored product with strong absorbance at OD=450 nm. The sensitivity of this assay is less than 20 µU of OXDC activity.

The assay is simple, sensitive, high-throughput adaptable.

Notes 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.

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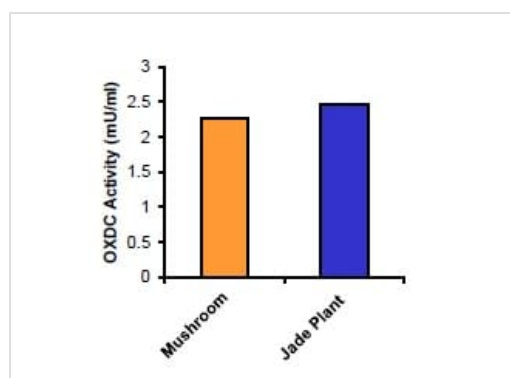
Platform Microplate reader

Properties

Storage instructions Store at -20°C. Please refer to protocols.

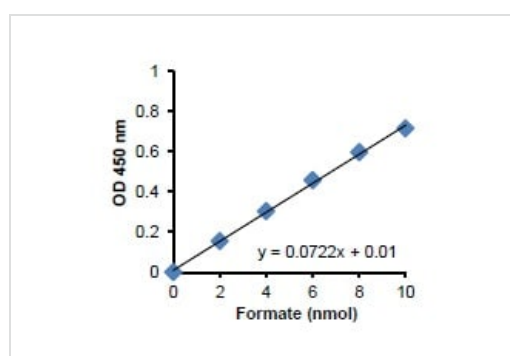
Components	Identifier	100 tests
Formate Standard (100 mM)	Yellow cap	1 x 0.1ml
OXDC Assay Buffer I		1 x 20ml
OXDC Assay Buffer II		1 x 15ml
OXDC Enzyme Mix		1 vial
OXDC Probe		1 vial
OXDC Substrate		1 vial
Positive Control		1 x 0.1ml

Images



Oxalate Decarboxylase (OXDC) activity was measured in white mushroom lysate (20 μ L), and Jade Plant lysate (20 μ L).

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Typical Formate Standard Curve.

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