

Enolase Activity Assay Kit

Cat. No. Kit-0325 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Enolase Activity Assay Kit is a quantitative colormetric/fluorometric determination of Enolase Activity.

Description

Enolase (EC 4.2.1.11), also called 2-phospho-D-glycerate hydrolase or 2-phosphoglycerate dehydratase, is a key enzyme in glycolysis. It converts 2-phosphoglycerate to phosphoenolpyruvate (PEP) & also catalyzes the reverse reaction, PEP to 2-phosphoglycerate under anabolic conditions during gluconeogenesis. In mammals, Enolase consists of three subunits: α , β and γ that combine into 5 isozymes, 3 of which are commonly found in human tissues. This enzyme exists in all organisms, which can undergo glycolysis. Besides its role in glycolysis, enolase has other functions too. Recent studies have shown that increased activity of enolase is associated with tumor invasion and metastasis; therefore, precise measurement of enolase activity may be of great interest for tumor diagnosis and prognosis. In Enolase Activity Assay Kit, enolase catalyzes the conversion of 2-phosphoglycerate to phosphoenolpyruvate, which is subsequently used to generate an intermediate product. The intermediate product stoichiometrically reacts with OxiRed probe to generate color (OD 570 nm) or fluorescence (Ex/Em = 535/587 nm). This simple & sensitive assay Kit can detect enolase activity less than 0.04 mU in a variety of samples.

Applications

Measurement of enolase activity in various tissues/cells
Analysis of glycolytic metabolism in different tissues/cells
Mechanistic studies of various cancers
Screening anti-cancer drugs

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Usage	For research use only (RUO)
Storage	Store kit at -20°C, protected from light. Warm Assay Buffer to room temperature before use. Briefly centrifuge small vials prior to opening.
Kit Components	Enolase Assay Buffer. Cap code: WM. 25 mlOxiRed Probe (in DMSO). Cap code: red. 0.2 mlEnolase Substrate Mix (Lyophilized). Cap code: orange. 1 vialEnolase Converter (Lyophilized). Cap code: purple. 1 vialEnolase Developer (Lyophilized). Cap code: green. 1 vialEnolase Positive Control (Lyophilized). Cap code: blue. 1 vialH2O2 Standard (0.88 M). Cap code: yellow. 0.1 ml
Detection method	Colorimetric, Fluorometric
Compatible Sample Types	Cell Culture, Tissue

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