

Glyoxalase II Activity Kit (Colorimetric)

Cat. No. Kit-2337 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Glyoxalase II (GloII, hydroxyacylglutathione hydrolase, EC 3.1.2.6) is one of the two enzymes in the Glyoxalase system that is ubiquitously expressed in mammalian, plants and bacteria. The Glyoxalase system is a biological pathway that detoxifies cells by metabolizing α -ketoaldehydes such as methylglyoxal, a cytotoxic byproduct of lipids and glucose metabolism. GloII fulfills the terminal step in the glyoxalase system: It catalyzes the hydrolysis of S-D-lactoyl-glutathione (SLG) to reduced glutathione and D-lactic acid. The alteration of GloII activity in cell growth cycle, cell differentiation, phagocyte activation and diabetes mellitus development implies this enzyme plays a wide-ranging and important role in cell function and disease progression. Research areas of current interest in Glo-II include diabetes, and cancer therapy. Glyoxalase II Activity Kit utilizes the ability of an active Glo-II to cleave a substrate while producing D-lactate. The produced D-Lactate reacts with the chromophore generating a stable signal that can be easily quantified at 450 nm using a microplate reader. Our assay kit is simple, sensitive and can detect as low as 0.6 mU/ml of Glo-II activity in biological samples.

Applications

Measurement of Glyoxalase II activity in biological samples

Storage

-20°C

Shipping

Gel Pack

Size

100 assays

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Kit Components	GloII Assay Buffer; Enzyme Mix (Lyophilized); GloII Substrate (Lyophilized); GloII Probe (Lyophilized); GloII Positive Control; D-Lactate Standard (100 mM)
Target Species	Mammalian
Detection method	Colorimetric (OD 450 nm)
Features & Benefits	Simple procedure; takes ~ 40 minutes; Fast and convenient; Kit contains all necessary reagents for accurate measurement of Glyoxalase II

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