CREATIVE BIOMART®
Assay Kit

Glutathione Colorimetric Assay Kit

Product Information

Cat

Kit-2238

Cat.No.

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Product Overview

Glutathione (GSH) is the major intracellular low-molecular-weight thiol that plays a critical role in the cellular defense against oxidative stress in mammalian cells. ApoGSH; Glutathione Colorimetric Assay Kit provides a convenient, colorimetric method for analyzing either total glutathione or the reduced form glutathione alone using a microtiter plate reader. The assay is based on the glutathione recycling system by DTNB and glutathione reductase. DTNB and glutathione (GSH) react to generate 2-nitro-5-thiobenzoic acid which has yellow color. Therefore, GSH concentration can be determined by measuring absorbance at 412 nm. The generated GSSG can be reduced back to GSH by glutathione reductase, and GSH reacts with DTNB again to produce more 2-nitro-5-thiobenzoic acid. Therefore, the recycling system dramatically improves the sensitivity of total glutathione detection. The kit includes the 5-Sulfosalicylic acid (SSA) for the removal of proteins from samples and for the protection of GSH oxidation and γ-glutamyl transpeptidase reaction. The kit can quantify glutathione from 1-100 ng/well in a 200;l reaction. For detecting lower glutathione concentrations, such as in blood samples, increasing reaction time will generate stronger signal. The kit can also specifically detect the reduced form of glutathione (GSH) by omitting the glutathione reductase from the reaction mixture. The sensitivity for detecting the reduced form of glutathione (without recycling system) is 100 times lower than detecting the total glutahione.

Applications

The Colorimetric Glutathione Detection Kit provides a simple in vitro assay for detecting the GSH changes in apoptosis and other pathological processes.

Storage

-20°C

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Assay Kit

Glutathione Colorimetric Assay Kit

Shipping	
Gel Pack	
Size	
100 assays	
Kit Components	
Glutathione Reaction Buffer; Glutathione Substrate (DTNB); NADPH Generating Mix (lyophilized); Glutathione Reductase (lyophilized); Sulfosalicylic Acid (SSA, 1 gram); GSH Standard (lyophilized, MW 307)	
Target Species	
Mammalian	
Detection method	Absorbance (412 nm)
Features & Benefits	
Simple procedure; takes only ~2-3 hours; Fast and convenient	

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