



Glutathione (GSH/GSSG/Total) Fluorometric Assay Kit

Product Information

Cat

Kit-2207

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Product Overview

Glutathione is the major intracellular low-molecular-weight thiol that plays a critical role in cellular defense against oxidative stress in tissues and cells. Commercially available glutathione detection kits, such as the DTNB-enzyme cycling glutathione assay kit or the Monochlorobimane based assay kit hardly distinguish between reduced glutathione (GSH; FW: 307) and oxidized glutathione (GSSG; FW: 612). Glutathione Detection Kit provides a unique, convenient tool for detecting GSH, GSSG, and total glutathione individually. In the assay, OPA, reacts with GSH (not GSSG), generating fluorescence, so GSH can be specifically quantified. Adding a reducing agent converts GSSG to GSH, so (GSH + GSSG) can be determined. To measure GSSG specifically, a GSH Quencher is added to remove GSH, preventing reaction with OPA (while GSSG is unaffected). Reducing agent is then added to destroy excess quencher and to convert GSSG to GSH. Thus, GSSG can be specifically quantified. The kit provides a unique procedure and buffer formula to eliminate protein thiol interference and to stabilize GSH and GSSG in solution.

Applications

The kit provides unique formula and buffers and procedures for detecting the GSH, GSSG, and total glutathione individually.

Storage

-20°C

Shipping

Gel Pack

Size



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100 assays

Kit Components

Glutathione Assay Buffer; PCA (Perchloric Acid, 6N); KOH (<6N); OPA Probe (o-phthalaldehyde); Reducing Agent Mix; GSH Quencher; GSH Standard (FW: 307)

Target Species

Mammalian

Detection method Fluorescence (Ex/Em340/420 nm)

Features & Benefits

Simple procedure; takes only ~1-2 hours;

Fast and convenient;

The assay is easy to perform and detects 2-400 ng/μl of GSH, GSSG or total glutathione.