

GSSG/GSH Quantification Kit



[Code#: G257-10] 200 tests

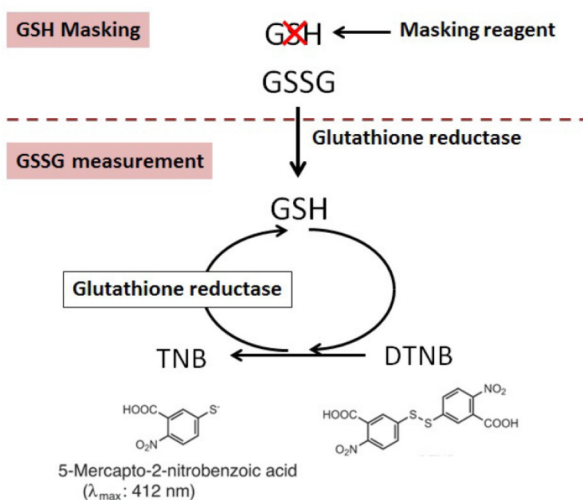
FEATURES

- Selectively Quantifies Glutathione (Oxidized form and Reduced form)
- Contains Masking Reagent of GSH
- Wide Detection Range of 0.5 μM to 50 μM (Reduced form GSH)
- Simultaneous Measurement of 9 Samples per Plate

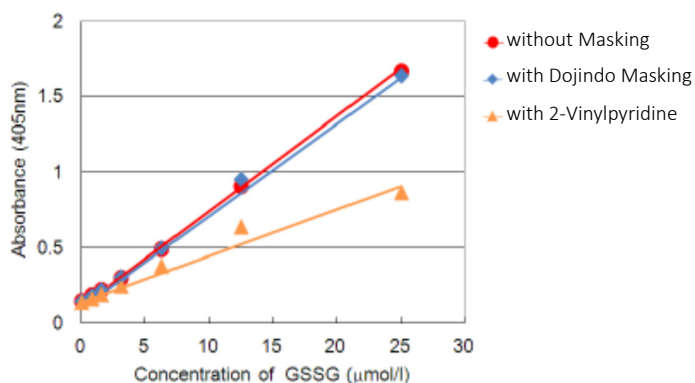
PRODUCT DESCRIPTION

Glutathione (γ -L-glutamyl-L-cysteinylglycine) is a tripeptide compound. As an enzyme substrate of glutathione peroxidase, glutathione S-transferase, thiol transferase, Glutathione plays a role in anti-oxidation and drug metabolism. Glutathione usually exist as a reduced form (GSH). However, GSH is converted to an oxidized form (GSSG) when exposed to oxidative stress. Therefore, the ratio of GSH and GSSG is an important index of oxidative stress.

The amount of GSSG in biological samples can be determined by either subtracting the amount of GSSG from the total amount of glutathione or selectively measuring GSSG in the samples. Dojindo's GSSG/GSH Quantification Kit contains a GSH masking reagent with this kit, and GSH in the sample solution can be removed by addition of the masking reagent. An enzymatic recycling colorimetric reaction with DTNB (5,5'-dithiobis (2-nitrobenzoic acid)) performs highly sensitive detection of the GSSG and GSH (see "principle"). The detection ranges of GSH and GSSG is from 0.5 $\mu\text{mol/l}$ to 50 $\mu\text{mol/l}$ and 0.5 $\mu\text{mol/l}$ to 25 $\mu\text{mol/l}$, respectively.

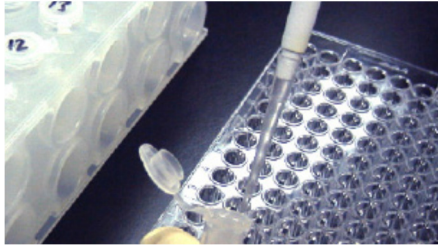


Selective Quantification

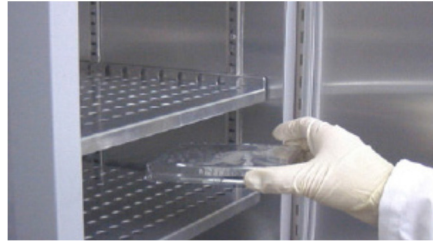


Conventional masking reagent, 2-Vinylpyridine(2-VP), interferes with the reaction of GSSG measurement. However, Dojindo's masking reagent does not interfere with the reaction of GSSG measurement. Therefore, exact ratio of GSSG and GSH is obtained with Dojindo GSSG/GSH detection Kit.

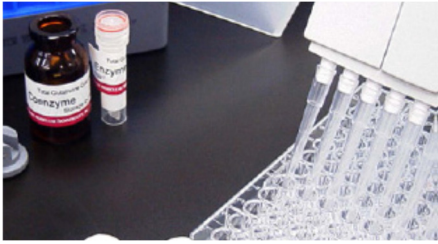
Procedure



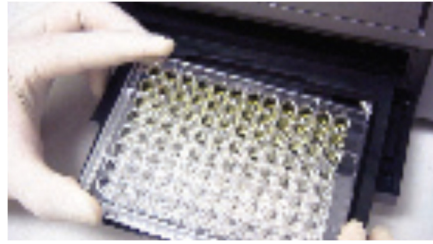
1. Add GSSG, GSH standard Sol. and Sample A or Sample B, then add buffer solution.



2. Incubate at 37°C for 1 hr



3. Add Substrate, Enzyme and Coenzyme working solution.



4. After incubation at 37°C for 10 min., measure the O.D. at 405 nm.

Calibration Curve

