

## Certificate of Analysis

**Product Name:** Glutathione Assay Kit

**Catalog No.:** Z5030030

**Shipping Condition:** Room Temperature

**Storage Condition:** Store all components at 4°C

**Shelf Life:** 12 months from the date of receipt under proper storage conditions

### Description

Glutathione is a tripeptide of glycine, glutamic acid and cysteine. In the red blood cell, the reduced form of glutathione is vital in maintaining hemoglobin in a reduced state and hence protecting the cells from oxidative damage. Glutathione is involved in detoxification of hydrogen peroxide through glutathione oxidase. Low levels of glutathione are found in deficiencies of key enzymes involved in glutathione metabolism, such as glucose-6-phosphate dehydrogenase, glutathione synthase and glutathione reductase.

Simple, direct and automation-ready procedures for measuring reduced glutathione are becoming popular in Research and Drug Discovery. BioChain' Glutathione Assay Kit is designed to accurately measure reduced glutathione in biological samples. The improved 5,5'-dithiobis(2-nitrobenzoic acid (DTNB) method combines deproteination and detection (Reagent A) into one reagent. DTNB reacts with reduced glutathione to form a yellow product. The optical density, measured at 412 nm, is directly proportional to glutathione concentration in the sample. The optimized formulation has a long shelf life and is completely free of interference due to sample turbidity.

### *Testing Data:*

20  $\mu$ L fresh mouse blood was mixed quickly with 380  $\mu$ L water. Assays in 96-well plate gave blood glutathione concentration of  $1124 \pm 8 \mu\text{M}$  ( $n = 2$ )

### Components

1. One Kit
2. User Manual
3. Certificate of Analysis
4. MSDS

**FOR IN VITRO RESEARCH USE ONLY**

**APPROVED BY:** \_\_\_\_\_

