

Glutathione Reductase Activation Coefficient Assay kit

Glutathione Reductase (GR) is a flavin protein REDOX reductase widely found in eukaryotes and prokaryotes. The enzyme uses riboflavin adenine dinucleotide (FAD), a riboflavin derivative, as a cogroup. Catalyzed NADPH reduction oxidized glutathione (GSSG) to produce reduced glutathione (GSH), maintaining sulfhydryl group and membrane protein in reduced state. When riboflavin was lacking in vivo, FAD content decreased correspondingly, GR activity also decreased, glutathione reductase activity Coefficient (GRAC) increased rapidly, and clinical symptoms such as cheilitis, keratitis, conjunctivitis appeared. Therefore, the use of GRAC in the evaluation of riboflavin nutritional status is of great significance for early detection and prevention of patients with deficiency. GR catalyzes NADPH reduction of GSSG to produce GSH, which reacts with 5,5'-dithiobis-2-nitrobenzoic acid (5,5'-dithiobis-2-nitrobenzoic acid, DTNB) to produce 2-nitro-5-mercaptobenzoic acid. 2-nitro-5-mercaptobenzoic acid has a characteristic absorption peak at 412nm, and the activity of GR can be calculated by the change of absorbance at 412nm. According to the change of GR activity before and after adding FAD, GRAC can be calculated.

Catalog No.	250600
Size	50 Assays / 100 Assays
Product Category	Colorimetric Assay
Detection Method	Spectrophotometry / Micro-Plate Reader
Storage/Stability	-20°C/6 months
Shipping	Gel Packs