

Sulfite Assay Kit

Cat. No. Kit-1677 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Sulfur dioxide, sulfurous acid and its salts (sulfites) occur in very low concentrations in nature. However, they have been used for a very long time in the industrial production of foodstuffs ("sulfurating"). Sulfur dioxide is used as a preservative in food industry in order to prevent microbial spoilage. The usage of sulfuric acid in the production in wine belongs to the most important techniques in order to improve stability and taste of wine. Sulfite is regarded as being poisonous for cells; in metabolism, it is rapidly oxidized to sulfate and excreted. The sulfite content in foodstuffs is legally prescribed in a number of countries and the content has often to be declared on the label.
Size	30 tests
Description	Enzymatic method for the determination of sulfite. Based on the spectrophotometric measurement of NADH formed through the combined action of sulfite oxidase (SOD) and NADH-peroxidase (NADH-POD).
Applications	This rapid and simple specific enzymatic method is used for the determination of sulfite ("total SO ₂ ") in foodstuffs such as wine, beer, fruit and vegetables, as well as in pharmaceuticals and water.
Kit Components	Solution 1. Triethanolamine buffer (30 mL, 0.8 M, pH 8.0) and sodium azide (0.02% w/v) as a preservative. Stable for 2 years at 4 °C. Solution 2. NADH tablets (0.4 mg each). Stable for 5 years at -20 °C. Dissolve 3 tablets per 2 mL of solution 1; use forceps for taking the tablets out. Suspension 3. NADH-peroxidase (NADH-POD, EC 1.11.1.1; 500 U/mL) (0.4 mL). Stable for 2 years at 4 °C. Swirl bottle before

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

use. Suspension 4. Sulfite oxidase (SOD, EC 1.8.3.1; 1.0 U/mL) in 3.2 M ammonium sulphate (1.6 mL). Stable for 2 years at 4 °C. Swirl bottle before use. Solution 5. Sulfite control (2 g sodium sulfite). Stable for 2 years at 4 °C. Dissolve approx. 60 mg of sodium sulfite (30 mg sulfite) in 100 mL of distilled water; store in a well-sealed bottle and use on the day of preparation. This control solution can be used when there is some doubt about the method accuracy.

Features & Benefits

Stable enzyme suspensions
Simple format
Suitable for manual and micro volume formats

Sensitivity

The sensitivity of the assay is based on 0.005 AU and a sample volume of 2.00 mL. This corresponds to a sulfite concentration of 0.1 mg/L sample solution when measured at 340 nm. The detection limit of 0.30 mg/L is derived from the absorbance difference of 0.010 (340 nm) and a maximum sample volume of 2.00 mL.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA