



## Xanthine Assay Kit

### Product Information

#### Cat.No.

Kit-2081

#### Product Overview

Simple, direct and high-throughput assays for measuring xanthine find wide applications in research and drug discovery. The xanthine assay kit uses a single Working Reagent that combines the xanthine oxidase reaction and color reaction in one step. The change in color intensity of the reaction product at 570 nm or fluorescence intensity at  $\lambda_{ex}/\lambda_{em} = 530/585$  nm is directly proportional to xanthine concentration in the sample.

#### Size

100 tests

#### Description

Xanthine is a purine base that can be found in most animal tissues and fluids. It is a product in the purine degradation pathway, produced by guanine deaminase from guanine, and by xanthine oxidoreductase from hypoxanthine. Xanthine is degraded to uric acid by xanthine oxidase. Clinically, xanthine and its derivatives act on sleep-inducing adenosine receptors as antagonists.

#### Applications

For quantitative determination of xanthine and drug effects on its metabolism.

#### Storage

The kit is shipped on ice. Store all reagents at  $-20^{\circ}\text{C}$ . Shelf life: 6 months after receipt.

#### Kit Components

Assay Buffer: 10 mL HRP Enzyme: 120  $\mu\text{L}$  Standard: 1 mL 2 mM Xanthine Dye Reagent: 120  $\mu\text{L}$  XO Enzyme: 100  $\mu\text{L}$

**Detection method** OD570nm, FL530/585nm

#### Compatible Sample Types



## Xanthine Assay Kit

Cell lysate, serum, and other biological samples.

### Features & Benefits

- Sensitive and accurate. Use as little as 10  $\mu$ L samples. Linear detection range in 96-well plate for 30 minute incubation: 0.01 to 2.5 mM xanthine for colorimetric assays and 3 to 250  $\mu$ M for fluorimetric assays.
- Simple and convenient. The procedure involves addition of a single working reagent and incubation for 30 min at room temperature.
- Fast and high-throughput. Assays using 96-well plates and liquid handling system could allow simultaneous processing tens of thousands of samples per day.

### Assay time

30 min

### Sensitivity

Detection Limit: FL 3  $\mu$ M; OD 10  $\mu$ M