

Xanthine oxidase, Microorganism

Cat. No.:	HY-P2755	
CAS No.:	9002-17-9	
Target:	Reactive Oxygen Species	
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB	Xanthine oxidase, Microorganism
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.	

SOLVENT & SOLUBILITY

In Vitro	H ₂ O : ≥ 10 mg/mL * "≥" means soluble, but saturation unknown.
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BIOLOGICAL ACTIVITY

Description	Xanthine oxidase, Microorganism (XO) is a xanthine oxidoreductase enzyme that generates reactive oxygen species (ROS), catalyzes the oxidation of hypoxanthine to xanthine, and further catalyzes the oxidation of xanthine to uric acid ^[1] .
In Vitro	Xanthine oxidase rapidly and completely depletes hypoxanthine in human erythrocytes ^[2] . Xanthine oxidase (20 mU/mL, 72 h) inhibits growth of Plasmodium falciparum in human erythrocytes ^[2] . Xanthine oxidase (0.02 U/mL, 6 h) reduces the viability of postnatal cerebellar granule neurons obtained from 8-day old Sprague-Dawley rat pups ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. AdeebShehzad, et al. Chapter Eight - Curcumin: A Potent Modulator of Multiple Enzymes in Multiple Cancers.
- [2]. Berman PA, et al. Xanthine oxidase inhibits growth of Plasmodium falciparum in human erythrocytes in vitro. J Clin Invest. 1991 Dec;88(6):1848-55.
- [3]. Fatokun AA, et al. Hydrogen peroxide mediates damage by xanthine and xanthine oxidase in cerebellar granule neuronal cultures. Neurosci Lett. 2007 Apr 6;416(1):34-8.

Caution: Product has not been fully validated for medical applications. For research use only.

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