Creative Enzymes®

Native Microbial Xanthine Oxidase

Cat. No. NATE-0733

Lot. No. (See product label)

Introduction

Description	Xanthine oxidase is a molybdenum-containing enzyme that is found in the cytosol, and may be strongly inhibited by flavonoids. It plays a vital role in the metabolism of some drugs, as well as purines and pyrimidines. It is also known to be a biological source of reactive oxygen species. Xanthine oxidase was shown to be involved in the reduction of cytochrome c by the generation of superoxide anions following the oxidation of xanthine. These free radicals are responsible for reducing cytochrome c.
Applications	This enzyme is useful for enzymatic determination of inorganic phosphorus, 5′-nucleotidase and adenosine deaminase when coupled with Purine-nucleoside phosphorylase and uricase.
Synonyms	Xanthine oxidase; XO; xanthine oxidoreductase; EC 1.17.3.2; 9002-17-9; XOD; Xanthine:oxygen oxidoreductase; hypoxanthine oxidase; hypoxanthine:oxygen oxidoreductase; Schardinger enzyme; hypoxanthine-xanthine oxidase; xanthine:O2 oxidoreductase; xanthine:xanthine oxidase

Product Information

Source	Microbial
Form	Lyophilized powder containing BSA and sodium glutamate as stabilizers
EC Number	EC 1.17.3.2.
CAS No.	9002-17-9
Molecular Weight	mol wt ~160 kDa
Activity	> 7 units/mg solid
pH Stability	pH 6.5-9.0 (25°C, 15hr)
Optimum pH	7.5-8.0
Thermal stability	below 55°C (pH 8.0, 30min)
Optimum temperature	65°C
Inhibitors	Reducing agents, Hg++, Ag+,MIA
Unit Definition	One unit will convert 1.0 µmole of xanthine to uric acid per min at pH 7.5 at 25°C. Approx. 50% of the activity is obtained with hypoxanthine as substrate.

Storage and Shipping Information

Storage	−20°C