Native Microorganism Xanthine oxidase

Cat. No. DIA-218

Lot. No. (See product label)

Introduction

Description	Xanthine oxidase is a form of xanthine oxidoreductase, a type of enzyme that generates reactive oxygen species. These enzymes catalyze the oxidation of hypoxanthine to xanthine and can further catalyze the oxidation of xanthine to uric acid. These enzymes play an important role in the catabolism of purines in some species, including humans.
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	EC 1.1.3.22; Xanthine oxidase; XO; XAO

Product Information

Source	Microorganism
Appearance	Reddish brown amorphous powder, lyophilized
EC Number	EC 1.1.3.22
CAS No.	9054-84-6
Molecular Weight	approx. 160 kDa
Activity	GradeⅡ 10U/mg-solid or more
Contaminants	Catalase < 5% Adenosine deaminase < 1.0×10^{-3}% Uricase < 1.0×10^{-3}% Phosphatase < 1.0×10^{-3}% Purine-nucleoside phosphorylase < 5.0×10^{-3}%
Isoelectric point	4.0±0.1
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
Michaelis Constant	4.5×10^{-5}M (Xanthine), 7.6×10^{-5}M (Hypoxanthine)
Inhibitors	Reducing agents, Hg^{++}, Ag^{+},MIA
Stabilizers	Sodium glutamate, BSA

Storage and Shipping Information

Stability	Stable at-20°C for at least year