Creative Enzymes®

Bilirubin oxidase from Microorganism

Cat. No. NATE-1713

Lot. No. (See product label)

Introduction

Description	In enzymology, a bilirubin oxidase (EC 1.3.3.5) is an enzyme that catalyzes the chemical reaction:2 bilirubin + O2↔ 2 biliverdin + 2 H2O. Thus, the two substRates of this enzyme are bilirubin and O2, whereas its two products are biliverdin and H2O. This enzyme belongs to the family of oxidoreductases, to be specific those acting on the CH-CH group of donor with oxygen as acceptor. This enzyme participates in porphyrin and chlorophyll metabolism.
Synonyms	bilirubin oxidase M-1; bilirubin oxidase; EC 1.3.3.5; bilirubin: oxygen oxidoreductase

Product Information

Source	Microorganism
Form	Blue powder, lyophilized
EC Number	EC 1.3.3.5
CAS No.	80619-01-8
Molecular Weight	61 kDa (SDS-PAGE)
Activity	>500U/mg or >20U/mg
Isoelectric point	5.2
pH Stability	7.5~10.5 (25℃, 18hr)
Optimum pH	7.5
Thermal stability	< 50℃(pH 7.0, 30min)
Optimum temperature	37°C
Michaelis Constant	1.2×10^-4 M(Bilirubin, pH 8.0)
Inhibitors	NaN3, KCN
Unit Definition	One unit will convert one micromole of bilirubin to biliverdin per min at pH 8.0 at 25℃.
Notes	INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR DIAGNOSTIC APPLICATIONS.

Storage and Shipping Information

Storage	Store at -20°C.