

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: $2 \text{ bilirubin} + \text{O}_2 \rightleftharpoons 2 \text{ biliverdin} + 2 \text{ H}_2\text{O}$. Thus, the two substrates of this enzyme are bilirubin and O_2 , whereas its two products are biliverdin and H_2O . 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°C, 18hr)

Optimum pH 7.5

Thermal stability < 50°C (pH 7.0, 30min)

Optimum temperature 37°C

Michaelis Constant 1.2×10^{-4} M (Bilirubin, pH 8.0)

Inhibitors NaN_3 , KCN

Unit Definition One unit will convert one micromole of bilirubin to biliverdin per min at pH 8.0 at 25°C.

Notes INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR DIAGNOSTIC APPLICATIONS.

Storage and Shipping Information

Storage Store at -20°C.