

Native Xanthine Dehydrogenase from Bovine milk

Cat. No. NATE-1065

Lot. No. (See product label)

Introduction

Description

Xanthine oxidoreductase (XOR) catalyzes the formation of uric acid from hypoxanthine and xanthine, last two steps of purine catabolism. The mammalian enzyme is synthesized as a xanthine dehydrogenase form (XDH, EC 1.17.1.4), which uses NAD as the electron acceptor, but is converted into an xanthine oxidase form (XO, EC 1.1.3.22) by reversible (through sulfhydryl group oxidation) or irreversible (proteolysis) manner. Since most industrial protocols of XOR purification includes proteolysis step, commercial XOR enzyme is available only as oxidase form unable to use NAD as a an electron acceptor.

Synonyms

xanthine dehydrogenase; NAD⁺-xanthine dehydrogenase; xanthine-NAD⁺ oxidoreductase; xanthine/NAD⁺ oxidoreductase; xanthine oxidoreductase; XDH; EC 1.17.1.4

Product Information

Species

Bovine

Source

Bovine milk

Form

Lyophilized

EC Number

EC 1.17.1.4

CAS No.

9054-84-6

Unit Definition

One unit of XDH catalyzes the reduction of 1μmol of NAD per minute at pH 8.8 with concomitant oxidation of hypoxanthine to uric acid.