Creative Enzymes®

Native Bacillus sphaericus 12α-Hydroxysteroid Dehydrogenase

Cat. No. NATE-0001

Lot. No. (See product label)

Introduction

Description	In enzymology, a 12alpha-hydroxysteroid dehydrogenase (EC 1.1.1.176) is an enzyme that catalyzes the chemical reaction:3alpha,7alpha,12alpha-trihydroxy-5beta-cholanate + NADP+↔ 3alpha,7alpha-dihydroxy-12-oxo-5beta-cholanate + NADPH + H+. Thus, the two substrates of this enzyme are 3alpha,7alpha,12alpha-trihydroxy-5beta-cholanate and NADP+, whereas its 3 products are 3alpha,7alpha-dihydroxy-12-oxo-5beta-cholanate, NADPH, and H+. This enzyme belongs to the family of oxidoreductases, specifically those acting on the CH-OH group of donor with NAD+ or NADP+ as acceptor. This enzyme is involved in a metabolic pathway that degrades bile acids into cholesterol.
Synonyms	EC 1.1.1.176; 61642-40-8; 12α Hydroxysteroid Dehydrogenase; 12alpha-hydroxy steroid dehydrogenase; NAD+-dependent 12alpha-hydroxysteroid dehydrogenase; NADP+-12alpha-hydroxysteroid dehydrogenase; 12-α-Hydroxysteroid Dehydrogenase; 12alpha-hydroxysteroid:NADP+ 12-oxidoreductase

Product Information

Source	Bacillus sphaericus
Form	lyophilized powder
EC Number	EC 1.1.1.176
CAS No.	61642-40-8
Activity	150-350 units/mg protein (Lowry)
Unit Definition	One unit will oxidize 1.0 µmole of deoxycholic acid to 12-ketodeoxycholic acid per min at pH 8.0 at 37°C.

Storage and Shipping Information

Storage	−20°C