

Native *Bacillus sphaericus* 12 α -Hydroxysteroid Dehydrogenase

Cat. No. NATE-0001

Lot. No. (See product label)

Introduction

Description In enzymology, a 12 α -hydroxysteroid dehydrogenase (EC 1.1.1.176) is an enzyme that catalyzes the chemical reaction: 3 α ,7 α ,12 α -trihydroxy-5 β -cholanate + NADP \rightleftharpoons 3 α ,7 α -dihydroxy-12-oxo-5 β -cholanate + NADPH + H $^{+}$. Thus, the two substrates of this enzyme are 3 α ,7 α ,12 α -trihydroxy-5 β -cholanate and NADP $^{+}$, whereas its 3 products are 3 α ,7 α -dihydroxy-12-oxo-5 β -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; 12 α Hydroxysteroid Dehydrogenase; 12 α -hydroxy steroid dehydrogenase; NAD $^{+}$ -dependent 12 α -hydroxysteroid dehydrogenase; NADP $^{+}$ -12 α -hydroxysteroid dehydrogenase; 12- α -Hydroxysteroid Dehydrogenase; 12 α -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 μ mole of deoxycholic acid to 12-ketodeoxycholic acid per min at pH 8.0 at 37°C.

Storage and Shipping Information

Storage -20°C