

## Native *Pseudomonas testosteroni* 3 $\alpha$ -Hydroxysteroid Dehydrogenase

Cat. No. NATE-0007

Lot. No. (See product label)

### Introduction

#### Description

In enzymology, a 3 $\alpha$ -hydroxysteroid dehydrogenase (B-specific) (EC 1.1.1.50) is an enzyme that catalyzes the chemical reaction: androsterone + NAD (P)<sup>+</sup>  $\leftrightarrow$  5 $\alpha$ -androstane-3,17-dione + NAD (P)H + H<sup>+</sup>. The 3 substrates of this enzyme are androsterone, NAD<sup>+</sup>, and NADP<sup>+</sup>, whereas its 4 products are 5 $\alpha$ -androstane-3,17-dione, NADH, NADPH, and H<sup>+</sup>. This enzyme belongs to the family of oxidoreductases, specifically those acting on the CH-OH group of donor with NAD<sup>+</sup> or NADP<sup>+</sup> as acceptor, more specifically it is part of the group of hydroxysteroid dehydrogenases.

#### Synonyms

hydroxyprostaglandin dehydrogenase; 3 $\alpha$ -hydroxysteroid oxidoreductase; sterognost 3 $\alpha$ ; 3 $\alpha$ -hydroxysteroid dehydrogenase (B-specific); 3 $\alpha$ -hydroxysteroid 3-dehydrogenase (B-specific); 3 $\alpha$ -hydroxysteroid:NAD (P)<sup>+</sup> 3-oxidoreductase (B-specific); EC 1.1.1.50

### Product Information

#### Source

*Pseudomonas testosteroni*

#### Form

Lyophilized powder containing potassium phosphate buffer salt and EDTA

#### EC Number

EC 1.1.1.50

#### CAS No.

9028-56-2

#### Activity

> 15 units/mg protein

#### Unit Definition

One unit will oxidize 1.0  $\mu$ mole of androsterone per min at pH 8.9 at 25°C in the presence of  $\beta$ -NAD<sup>+</sup>.

### Storage and Shipping Information

#### Storage

-20°C