Creative Enzymes
Diagnostic Enzymes

3α-Hydroxysteroid Dehydrogenase, Recombinant

Product Information

Cat#	NATE-1138
Abbr	3α-HSD, Recombinant
Similar	3α-Hydroxysteroid Dehydrogenase
Description	In enzymology, a 3alpha-hydroxysteroid dehydrogenase (B-specific) (EC 1.1.1.50) is an enzyme that catalyzes the chemical reaction: androsterone + NAD (P)+ ↔ 5alpha-androstane-3,17-dione + NAD (P)H + H+. The 3 substRates of this enzyme are androsterone, NAD+, and NADP+, whereas its 4 products are 5alpha-androstane-3,17-dione, NADH, 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, more specifically it is part of the group of hydroxysteroid dehydrogenases.
Applications	Bile acid is one of the substrates of 3α-hydroxy steroiddehydrogenase. 3α-hydroxy steroid dehydrogenase is used to catalyzethe dehydrogenation reaction of hydroxy steroid in clinic. So, HSD is used to detect the total bile acid clinically.
Appearance	White powder, lyophilized
Form	Freeze dried powder
Enzyme Commission Number	EC 1.1.1.50
Activity	About 50U/mg powder
Molecular Weight	About 28 kDa (SDS-PAGE detection)
Purity	90% (SDS-PAGE test)
Isoelectric point	4.8
Unit Definition	One unit will catalyze the oxidation of 1μmol of androsterone per min at pH8.9 at 25°C.
Optimum pH	7.0-9.0

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Activators	EDTA
Storage	4°C, store at -20°C for long-term preservation.
Buffer	20mM Tris, pH8.0
Inhibitors	Hg2+, Ag+
Synonyms	hydroxyprostaglandin dehydrogenase; 3α-hydroxysteroid oxidoreductase; sterognost 3α; 3α-hydroxysteroid dehydrogenase (B-specific); 3α-hydroxysteroid 3-dehydrogenase (B-specific); 3α-hydroxysteroid:NAD (P)+ 3-oxidoreductase (B-specific); EC 1.1.1.50

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