



3 α -Hydroxysteroid Dehydrogenase, Recombinant

Product Information

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| Cat# | NATE-1138 |
| Abbr | 3 α -HSD, Recombinant |
| Similar | 3 α -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) ⁺ \leftrightarrow 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 3 α -hydroxy steroiddehydrogenase. 3 α -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 1 μ mol of androsterone per min at pH8.9 at 25°C. |
| Optimum pH | 7.0-9.0 |



Creative Enzymes

Diagnostic Enzymes

3 α -Hydroxysteroid Dehydrogenase, Recombinant

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|-------------------|---|
| Activators | EDTA |
| Storage | 4°C, store at -20°C for long-term preservation. |
| Buffer | 20mM Tris, pH8.0 |
| Inhibitors | Hg ²⁺ , Ag ⁺ |
| Synonyms | hydroxyprostaglandin dehydrogenase; 3 α -hydroxysteroid oxidoreductase; sterognost 3 α ; 3 α -hydroxysteroid dehydrogenase (B-specific); 3 α -hydroxysteroid 3-dehydrogenase (B-specific); 3 α -hydroxysteroid:NAD (P) ⁺ 3-oxidoreductase (B-specific); EC 1.1.1.50 |