

r3 α -HSDH

3 α -Hydroxysteroid dehydrogenase, recombinant from bacteria

3 α -Hydroxysteroid : NAD(P)⁺ oxidoreductase (EC 1.1.1.50)

Host cell : E. coli

Reaction Equation



Specification

Specific Activity

IU/mg protein

Specifications

>50 units

Contaminants

Alcohol dehydrogenase

NADH oxidase

β -Hydroxysteroid dehydrogenase

<0.01%

<0.01%

<2.00%

Assay Procedure

I. Spectrophotometric Method

Wavelength ; 340 nm, Light path length ; 1 cm,
Temperature ; 25°C

Pipette the following reagents into a cuvette

0.60 mL	Sodium pyrophosphate buffer (0.1 mol/L, pH 8.9)
2.10 mL	Distilled water
0.20 mL	NAD ⁺ (6 mmol/L)
0.10 mL	Androsterone (0.015% in methanol)
0.02 mL	r3 α -HSDH (about 1 IU/mL)

II. Calculation

$$\frac{\Delta A/\text{min} \cdot V \cdot D}{6.3 \cdot d \cdot v} = \text{IU/mL}$$

$\Delta A/\text{min}$ = The change in absorbance at 340 nm/minute

V = Total volume of reaction mixture
(3.02 mL)

D = Enzyme dilution factor

6.3 = mM extinction coefficient of NADH
(L·mmol⁻¹·cm⁻¹)

d = Light path length (1 cm)

v = Volume of enzyme sample (0.02 mL)

Preparation and storage

Product Code : r3 α -HSDH-05

50% Glycerol solution..... -25°C ~ -15°C

OYC No./Package

OYC No.	Package
46565005	25 units
46566005	100 units
46567005	500 units
46565905	Bulk

(Research reagent use only, not for medical use.)



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