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3α羟基类固醇脱氢酶

Product description

Source： Microorganism

Enzyme Commission Number：EC 1.1.1.50

CAS Number：9028-56-2

Storage temperature：-20℃

Specific activity：50u/mg protein

Unit definition：One unit will oxidate one micromole of androsterone per min at pH8.25 at 25℃.

Properties：

Stability:	Stable at -20℃ for at least five years	
Molecular weight:	28 kDa (SDS-PAGE)	
Isoelectric point:	6.4	
Michaelis constant:	3.0×10-5M (Androsterone) 6.0×10-6M (NAD+)	
Optimum pH:	10.5	{Fig. 1}
Optimum temperature:	50℃~60℃	{Fig. 3}
pH Stability:	4.5~10.5 (30℃, 20hr)	{Fig. 2}
Thermal stability:	< 50℃ (pH 7.2, 20min)	{Fig. 4}
Inhibitors:	Cu2+,Fe3+,Zn2+,NEM,Proclin,SDS	
Effect ofvarious chemicals:		{Table 1}

Table 1.Effect of Various Chemicals on HSD

[The enzyme dissolved in 50mM Tris-HCl buffer, pH 7.5 (10U/ml) was incubated with each chemical at 37℃ for 2hr.]

Chemical	Concn.（mM）	Residual activity
None	-	100%

CaCl2	2.0	97%
CoCl2	2.0	93%
CuSO4	2.0	0%
FeCl3	2.0	44%
MgSO4	2.0	96%
MnSO4	2.0	92%
NiCl2	2.0	94%
ZnSO4	2.0	25%
BME	2.0	94%
NEM	2.0	0%
EDTA	5.0	99%
NaN3	20.0	99%
Proclin	0.045%	0%
Na-cholate	0.10%	100%
SDS	0.05%	0%
Triton X-100	0.10%	102%
Tween 20	0.10%	106%

Fig. 1 pH Activity

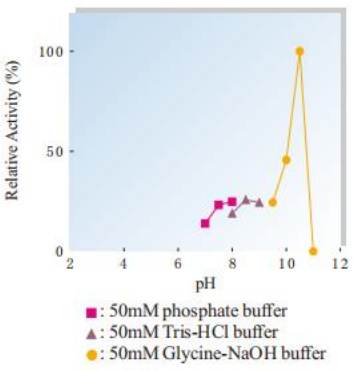


Fig. 3 Temperature activity

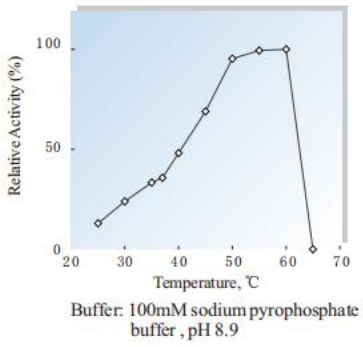


Fig. 2 pH Stability

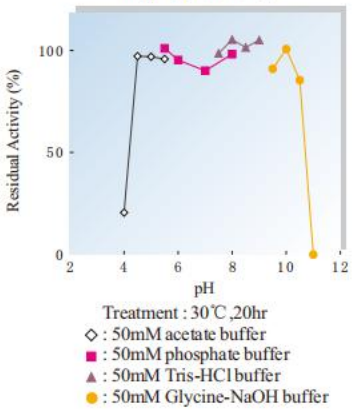


Fig. 4 Thermal stability

