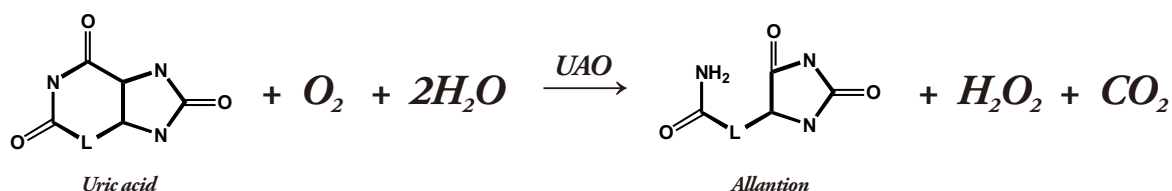


URICASE

Urate:oxygen oxidoreductase

REACTION:



PRODUCT DESCRIPTION

Catalog No.:	SDZ500070
Appearance:	White amorphous powder
Source:	Microorganism
Enzyme Commission Number:	EC 1.7.3.3
CAS Number:	9002-12-4
Storage temperature:	-20°C
Specific activity:	≥10U/mg protein
Unit definition:	One unit will oxidize one micromole of uric acid at pH 8.5 at 25°C.

PROPERTIES

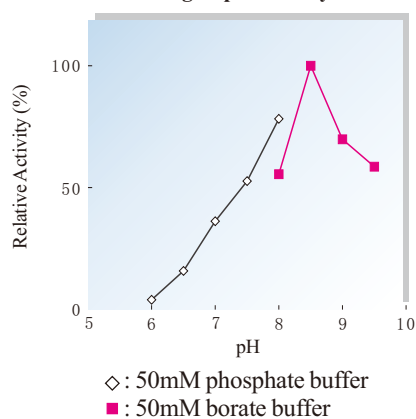
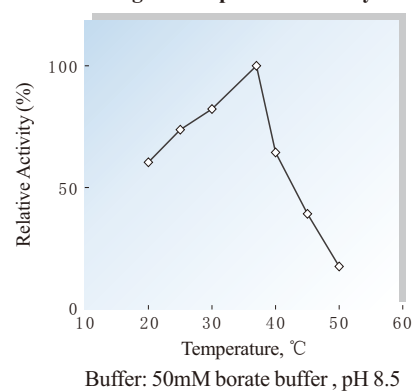
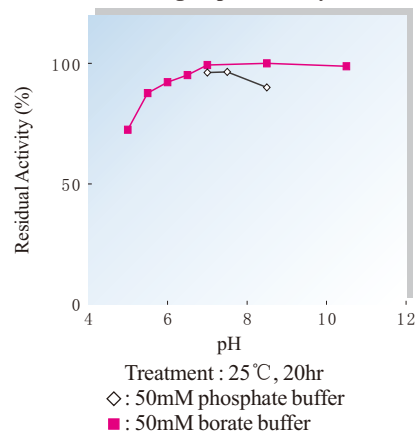
Molecular weight:	34 kDa (SDS-PAGE)	
Isoelectric point:	5.4	
Michaelis constant:	1.0 × 10 ⁻⁵ M (Uric acid)	
Optimum pH:	8.5	{Fig. 1}
Optimum temperature:	37°C	{Fig. 3}
pH Stability:	6.0~11.0 (25°C, 20hr)	{Fig. 2}
Thermal stability:	< 65°C (pH 8.5, 10min)	{Fig. 4}
Inhibitors:	Co ²⁺ , Cu ²⁺ , Fe ³⁺ , Ni ²⁺ , Zn ²⁺ , NEM, Proclin, SDS	
Effect of various chemicals:		{Table 1}

Table 1.**Effect of Various Chemicals on UAO**

[The enzyme dissolved in 50mM Boric Acid buffer, pH 8.5 (1U/ml) was incubated with each chemical at 37°C for 2hr.]

Chemical	Concn. (mM)	Residual activity
None	-	100%
CaCl ₂	2.0	99%
CoCl ₂	2.0	36%
CuSO ₄	2.0	3%
FeCl ₃	2.0	30%
MgSO ₄	2.0	100%
MnSO ₄	2.0	95%
NiCl ₂	2.0	10%
ZnSO ₄	2.0	6%

Chemical	Concn. (mM)	Residual activity
BME	2.0	98%
NEM	2.0	4%
EDTA	5.0	105%
Proclin	0.045%	8%
NaN ₃	20.0	104%
Na-cholate	0.10%	110%
SDS	0.05%	19%
Triton X-100	0.10%	100%
Tween 20	0.10%	105%

Fig. 1 pH Activity**Fig. 3 Temperature activity****Fig. 2 pH Stability****Fig. 4 Thermal stability**