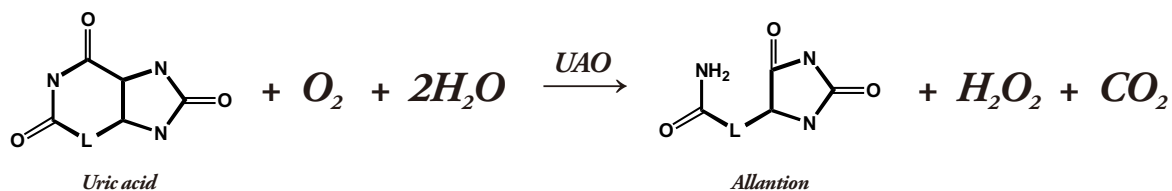


URICASE

Urate:oxygen oxidoreductase

REACTION:



PRODUCT DESCRIPTION

Catalog No.:	SDZ500071
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:	6.1	
Michaelis constant:	$7.0 \times 10^{-5} M$ (Uric acid)	
Optimum pH:	9.0	{Fig. 1}
Optimum temperature:	25°C	{Fig. 3}
pH Stability:	6.0~10.0(25°C, 20hr)	{Fig. 2}
Thermal stability:	< 55°C (pH 8.5, 10min)	{Fig. 4}
Inhibitors:	$Co^{2+}, Cu^{2+}, Ni^{2+}, Zn^{2+}$	
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	96%
CoCl ₂	2.0	69%
CuSO ₄	2.0	7%
FeCl ₃	2.0	94%
MgSO ₄	2.0	99%
MnSO ₄	2.0	92%
NiCl ₂	2.0	32%
ZnSO ₄	2.0	38%

Chemical	Concn. (mM)	Residual activity
BME	2.0	100%
NEM	2.0	94%
EDTA	5.0	99%
NaN ₃	20.0	98%
Na-cholate	0.10%	102%
SDS	0.05%	108%
Triton X-100	0.10%	100%
Tween 20	0.10%	99%

