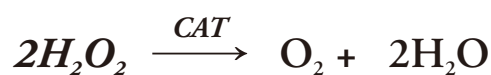


CATALASE

REACTION:



PRODUCT DESCRIPTION

Catalog No.:	SDZ500531
Appearance:	Olive green powder
Source:	Microorganism
Enzyme Commission Number:	EC 1.11.1.6
CAS Number:	9001-05-2
Storage temperature:	-2-8°C less than 15 days -20°C long term
Specific activity:	≥ 10000U/mg protein
Unit definition:	One unit will convert one micromole of Hydrogen peroxide per minute at pH 7.0 at 37°C.

PROPERTIES

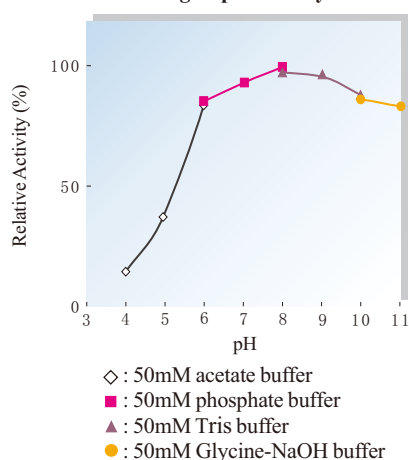
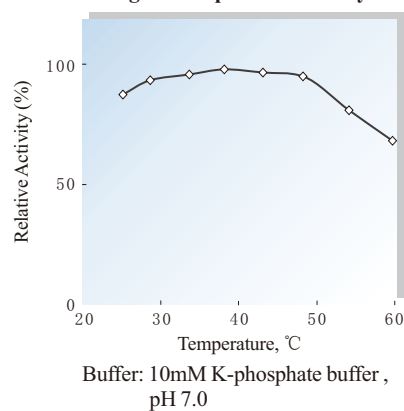
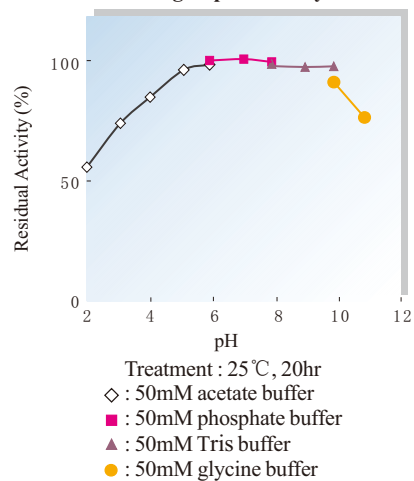
Molecular weight	82kDa(SDS-PAGE)	
Optimum pH:	8.0-9.0	{Fig. 1}
Optimum temperature:	35-50°C	{Fig. 3}
pH Stability:	5.0-10. 0(25°C, 20hr)	{Fig. 2}
Thermal stability:	< 50°C (pH 7.0, 30min)	{Fig. 4}
Inhibitors:	Co ²⁺ , Cu ²⁺ , Fe ³⁺ , Mn ²⁺ , Zn ²⁺ , BME, EDTA, K ₄ Fe(CN) ₆ , NaN ₃	
Effect of various chemicals:		{Table 1}

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

[The enzyme dissolved in 50mM Tris-HCl buffer, pH 7.5 BSA (100U/ml) was incubated with each chemical at 37°C for 2hr.]

Chemical	Concn. (mM)	Residual activity
None	-	100%
CaCl ₂	2.0	100%
CoCl ₂	2.0	85%
CuSO ₄	2.0	2%
FeCl ₃	2.0	88%
MgSO ₄	2.0	100%
MnSO ₄	2.0	80%
NiCl ₂	2.0	96%
ZnSO ₄	2.0	6%
K ₄ Fe(CN) ₆	2.0	83%

Chemical	Concn. (mM)	Residual activity
BME	2.0	0%
NEM	2.0	87%
EDTA	5.0	50%
NaN ₃	20.0	0%
Proclin	0.045%	100%
Na-cholate	0.10%	99%
SDS	0.05%	100%
Triton X-100	0.10%	97%
Tween 20	0.10%	100%
Brij35	0.10%	100%

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