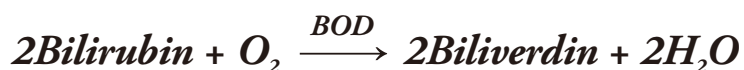


# **BILIRUBIN OXIDASE**

Bilirubin:oxygen Oxidoreductase

## **REACTION:**



## **PRODUCT DESCRIPTION**

Catalog No.:	qs50026
Appearance:	Blue amorphous powder
Source:	Microorganism
Enzyme Commission Number:	EC 1.3.3.5
CAS Number:	80619-01-8
Storage temperature:	-20°C
Specific activity:	≥ 500U/mg protein
Unit definition:	One unit will convert one micromole of bilirubin to biliverdin per min at pH 8.0 at 25°C.

## **PROPERTIES**

Molecular weight:	61 kDa (SDS-PAGE)	
Isoelectric point:	5.2	
Michaelis constant:	$1.2 \times 10^{-4}$ M(Bilirubin)	
Optimum pH:	7.5	{Fig. 1}
Optimum temperature:	37°C	{Fig. 3}
pH Stability:	7.5~10.5 (25°C, 18hr)	{Fig. 2}
Thermal stability:	< 50°C (pH 7.0, 30min)	{Fig. 4}
Inhibitors:	BME,NaN <sub>3</sub>	
Effect of various chemicals:		{Table 1}

**Table 1.**

**Effect of Various Chemicals on BOD**

[The enzyme dissolved in 50mM K-phosphate buffer, pH 7.5 (10U/ml) was incubated with each chemical at 25°C for 4hr.]

Chemical	Concn. (mM)	Residual activity
None	-	100%
CaCl <sub>2</sub>	2.0	88%
CoCl <sub>2</sub>	2.0	88%
CuSO <sub>4</sub>	2.0	85%
FeCl <sub>3</sub>	2.0	91%
MgSO <sub>4</sub>	2.0	106%
MnSO <sub>4</sub>	2.0	102%
NiCl <sub>2</sub>	2.0	99%
ZnSO <sub>4</sub>	2.0	92%

Chemical	Concn. (mM)	Residual activity
BME	2.0	75%
NEM	2.0	99%
EDTA	5.0	87%
NaN <sub>3</sub>	20.0	47%
Proclin	0.045%	88%
Na-cholate	0.10%	106%
SDS	0.05%	101%
Triton X-100	0.10%	107%
Tween 20	0.10%	105%

