

# ***CYSTATHIONINE β-LYASE***

## **REACTION:**



## **PRODUCT DESCRIPTION**

Catalog No.:	SDZ500490
Appearance:	Yellowish amorphous powder
Source:	Microorganism
Enzyme Commission Number:	EC 4.4.1.8
CAS Number:	9055-05-4
Storage temperature:	-20°C
Specific activity:	≥ 45U/mg protein
Unit definition:	One unit will hydrolyze one micromole of cystathionine per min at pH 8.0 at 37°C.

## **PROPERTIES**

Molecular weight:	43kD (SDS-PAGE)	
Isoelectric point:	6.2	
Michaelis constant:	1.0×10 <sup>-3</sup> M (L-Cystathionine)	
Optimum pH:	8.0-8.5	{Fig. 1}
Optimum temperature:	37°C	{Fig. 3}
pH Stability:	5.5-9.5 (25°C, 16hr)	{Fig. 2}
Thermal stability:	< 45°C (pH 7.5, 30min)	{Fig. 4}
Inhibitors:	Co <sup>2+</sup> , Cu <sup>2+</sup> , Fe <sup>3+</sup> , Mn <sup>2+</sup> , Ni <sup>2+</sup> , Zn <sup>2+</sup> , NEM, SDS	
Effect of various chemicals:		{Table 1}

**Table 1.**

**Effect of Various Chemicals on CBL**

[The enzyme dissolved in 50mM Tris-HCl buffer, pH8.0 (20U/ml) was incubated with each chemical at 37°C for 2hr.]

Chemical	Concn. (mM)	Residual activity
None	-	100%
CaCl <sub>2</sub>	2.0	119%
CoCl <sub>2</sub>	2.0	3%
CuSO <sub>4</sub>	2.0	2%
FeCl <sub>3</sub>	2.0	20%
MgSO <sub>4</sub>	2.0	116%
MnSO <sub>4</sub>	2.0	74%
NiCl <sub>2</sub>	2.0	19%
ZnSO <sub>4</sub>	2.0	2%

Chemical	Concn. (mM)	Residual activity
BME	2.0	98%
NEM	2.0	12%
EDTA	5.0	113%
NaN <sub>3</sub>	20.0	110%
Na-cholate	0.10%	107%
SDS	0.05%	4%
Triton X-100	0.10%	110%
Tween 20	0.10%	111%

