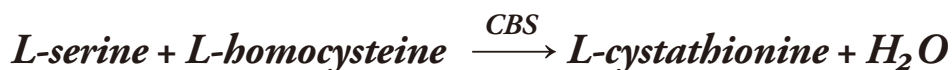


CYSTATHIONINE β-SYNTHASE

REACTION:



PRODUCT DESCRIPTION

Catalog No.:	qs50029
Appearance:	Yellowish amorphous powder
Source:	Microorganism
Enzyme Commission Number:	EC 4.2.1.22
CAS Number:	9023-99-8
Storage temperature:	-20°C
Specific activity:	≥ 5U/mg protein
Unit definition:	One unit causes the formation of one micromole of cystathionine per min at pH 8.0 at 37°C.

PROPERTIES

Molecular weight:	56kD (SDS-PAGE)	
Isoelectric point:	6.8	
Michaelis constant:	5.8×10 ⁻⁵ M (L-homocysteine)	
Optimum pH:	8.0-8.5	{Fig. 1}
Optimum temperature:	40°C	{Fig. 3}
pH Stability:	6.5-7.5 (25°C, 16hr)	{Fig. 2}
Thermal stability:	< 40°C (pH 7.5, 30min)	{Fig. 4}
Inhibitors:	SDS	
Effect of various chemicals:		{Table 1}

Table 1.

Effect of Various Chemicals on CBS

[The enzyme dissolved in 50mM Tris-HCl buffer, pH8.0 (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	98%
CuSO ₄	2.0	98%
FeCl ₃	2.0	85%
MgSO ₄	2.0	94%
MnSO ₄	2.0	97%
NiCl ₂	2.0	105%
ZnSO ₄	2.0	89%

Chemical	Concn. (mM)	Residual activity
BME	2.0	99%
NEM	2.0	98%
EDTA	5.0	100%
NaN ₃	20.0	102%
Na-cholate	0.10%	103%
SDS	0.05%	75%
Triton X-100	0.10%	108%
Tween 20	0.10%	108%

