

# Product Data Sheet

# Inhibitors • Screening Libraries • Proteins

## MetC Protein, E.coli (E. coli, His)

Cat. No.:	HY-P71694			
Synonyms:	metC; b3008; JW2975Cystathionine beta-lyase MetC; CBL; CL; CD; EC 4.4.1.28; Cysteine lyase MetC; Cysteine-S-conjugate beta-lyase MetC			
Species:	E.coli			
Source:	E. coli			
Accession:	P06721 (1M-392A)			
Gene ID:	946240			
Molecular Weight:	Approximately 46.8 kDa			

### PROPERTIES

AA Sequence					
An Sequence	MADKKLDTQL	VNAGRSKKYT	LGAVNSVIQR	ASSLVFDSVE	
	AKKHATRNRA N	NGELFYGRRG	TLTHFSLQQA	MCELEGGAGC	
	V L F P C G A A A V	ANSILAFIEQ	GDHVLMTNTA	YEPSODFCSK	
		WFDPLIGADI	VKHLQPNTKI	VFLESPGSIT	
		AAVRSVVPDA		GVLFKALDFG	
			GTAVCNARCW		
	C C	YLVGHSDAMI		EQLRENAYLM	
	GQMVDADTAY	ITSRGLRTLG	VRLRQHHESS	LKVAEWLAEH	
	PQVARVNHPA I	L P G S K G H E F W	KRDFTGSSGL	FSFVLKKKLN	
	NEELANYLDN I	F S L F S M A Y S W	GGYESLILAN	QPEHIAAIRP	
	QGEIDFSGTL	IRLHIGLEDV	DDLIADLDAG	F A	
Appearance	Lyophilized powder.				
Formulation	Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.				
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Endeterin Land					
Endotoxin Level	<1 EU/µg, determined by LAL method.				
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu$ g/mL in ddH <sub>2</sub> O.				
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). I				
	recommended to freeze aliquots at -20°C or -80°C for extended storage.				
Chinaina					
Shipping	Room temperature in continental US; may vary elsewhere.				

### DESCRIPTION

### Background

The MetC protein serves as a multifunctional enzyme with a primary role in catalyzing the cleavage of cystathionine to homocysteine, pyruvate, and ammonia, a critical step in methionine biosynthesis. Beyond its primary function, MetC demonstrates cysteine desulfhydrase activity, converting cysteine into sulfide. Moreover, under specific growth conditions,

the protein exhibits noteworthy coactivity as an alanine racemase. This versatile enzymatic repertoire highlights MetC's involvement in diverse metabolic pathways, showcasing its capacity to contribute to the intricate regulation of amino acid metabolism and biosynthetic processes.

### Caution: Product has not been fully validated for medical applications. For research use only.

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