
Product Data Sheet

Product Name: MYBPC3 Human
 Cat. No.: GP23978
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Myosin Binding Protein C Cardiac; C-Protein Cardiac Muscle Isoform; Myosin-Binding Protein C Cardiac; Cardiac MyBP-C; CMD1MM; LVNC10; MYBP-C; CMH4; FHC; MYBPC3.		
Amino Acid Sequence	MKHHHHHHASMPGKPPVS AFSKKPRSVE VAAGSPAVFE AETERAGVKV RWQRGGSDIS ASNKYGLATE GTRHTLVRE VGPADQGSYA VIAGSSKVKF DLKVIEAEKA EPMLAPAPAP AEATGAPGEA PAPAAELGES APSPKGSSSA ALNGPTPGAP DDPIGLFVMR PQDGEVTVGG SITFSARVAG ASLLKPPVVK WFKGKWVDLS SKVGQHLQLH DSYDRASKVY LFELHITDAQ PAFTGSYRCE VSTKDKFDCS NFNLTVHEAM GTGDLDLLSA F.		
Solubility	It is recommended to add deionized water to prepare a working stock solution of approximately 0.5mg/ml and let the lyophilized pellet dissolve completely. MYBPC3 is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.		
Formulation	MYBPC3 was filtered (0.4µm) and lyophilized in 20mM Tris buffer and 50mM NaCl, pH 7.5.		

Introduction

Myosin Binding Protein C, Cardiac (MYBPC3) is the cardiac isoform of myosin-binding protein C expressed exclusively in heart muscle. Myosin-binding protein C is a myosin-associated protein found in the cross-bridge-bearing zone (C region) of A bands in striated muscle. Regulatory phosphorylation of the cardiac isoform in vivo by cAMP-dependent protein kinase upon adrenergic stimulation may be associated with modulation of cardiac contraction. MYBPC3 gene mutations are one of the causes of familial hypertrophic cardiomyopathy. In vitro MYBPC3 binds MHC, F-actin and native thin filaments, and modifies the activity of actin-activated myosin ATPase. MYBPC3 may

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modulate muscle contraction or it may have a more structural role.

Stability

Store lyophilized protein at -20°C . Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after two weeks at 4°C .

Background

MYBPC3 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain (Met1-Phe271) containing 281 amino acids including a 10 aa His tag at N-terminus. The total calculated molecular mass is 29.6kDa.

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