
Product Data Sheet

Product Name: MMACHC Human
 Cat. No.: GP23932
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Methylmalonic aciduria and homocystinuria type C protein; MMACHC; cbIC; RP11-291L19.3.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MGSHEPKVA ELKQKIEDTL CPGFEVYPF QVAWYNELLP PAFHLPLPGP TLAFLVLSTP AMFDRALKPF LQSCHLRMLT DPVDQCVAYH LGRVRESLPE LQIEIIDYE VHPNRRPKIL AQTAHVAGA AYYYQRQDVE ADPWGNQRIS GVCIHPRFGG WFAIRGVLL PGIEVPDLPP RKP HDCVPTR ADRIALLEGF NFHWRDWTYR DAVTPQERYE EEQKAYFSTP PAQRLALLGL AQPSEKPSSP SPDLPFTTPA PKKPGNPSRA RSWLSRVSP PASPGP.		
Formulation	MMACHC protein solution (0.5mg/ml) containing 20mM Tris-HCl buffer (pH 8.0), 0.15M NaCl, 10% glycerol and 1mM DTT.		

Introduction

Though the exact role of MMACHC is unknown, its C-terminal region shows similarity to TonB, which is a bacterial protein involved in energy transduction for cobalamin (vitamin B12) uptake. Therefore, it is suggested that MMACHC may have a role in the binding and intracellular trafficking of cobalamin. MMACHC mutations are linked with methylmalonic aciduria and homocystinuria type cbIC. MMACHC is widely expressed, it is expressed at higher level in the fetal liver, however it is also expressed in the spleen, lymph node, thymus and bone marrow. MMACHC is weakly or not expressed in the peripheral blood leukocytes.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1%

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

MMACHC Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 306 amino acids (1-282 a.a) and having a molecular mass of 34kDa. MMACHC is fused to a 24 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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