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Product datasheet for RC223846

MMACHC (NM_015506) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MMACHC (NM_015506) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MMACHC
Synonyms:	cblC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

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>RC223846 representing NM_015506
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGCCGAAAGTCGCAGAGCTGAAGCAGAAGATCGAGGACACGCTATGTCCTTTTGGCTTCGAGGTTT
ACCCCTTCCAGGTGGCATGGTACAATGAACTCTTGCCTCCAGCCTTCCACCTACCGCTGCCAGGACCTAC
CCTGGCCTTCCTGGTACTCAGCACGCCTGCCATGTTTGACCGGGCCCTCAAGCCCTTCTTGCAGAGCTGC
CACCTCCGAATGCTGACTGACCCAGTGGACCAGTGTGTGGCCTACCATCTGGGCCGTGTTAGAGAGAGCC
TCCCAGAGCTGCAGATAGAAATCATTGCTGACTACGAGGTGCACCCCAACCGACGCCCCAAGATCCTGGC
CCAGACAGCAGCCCATGTAGCTGGGGCTGCTTACTACTACCAACGACAAGATGTGGAGGCTGACCCATGG
GGGAACCAGCGCATATCAGGTGTGTGCATACACCCCCGATTTGGGGGCTGGTTTGCCATCCGAGGGGTAG
TGCTGCTGCCAGGGATAGAGGTGCCAGATCTGCCACCCAGAAAACCTCATGACTGTGTACCTACAAGAGC
TGACCGTATCGCCCTACTCGAAGGCTTCAATTTCCACTGGCGTGATTGGACTTACCGGGATGCTGTGACA
CCCCAGGAGCGCTACTCAGAAGAGCAGAAGGCCTACTTCTCCACTCCACCTGCCCAACGATTGGCCCTAT
TGGGCTTGGCTCAGCCCTCAGAGAAGCCTAGTTCTCCCTCCCCGGACCTTCCCTTTACCACACCCGCCCC
CAAGAAGCCTGGGAATCCCAGCAGAGCCCGGAGCTGGCTCAGCCCCAGGGTCTCACCACCTGCATCCCCT
GGCCCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA
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Protein Sequence:

>RC223846 representing NM_015506
Red=Cloning site Green=Tags(s)

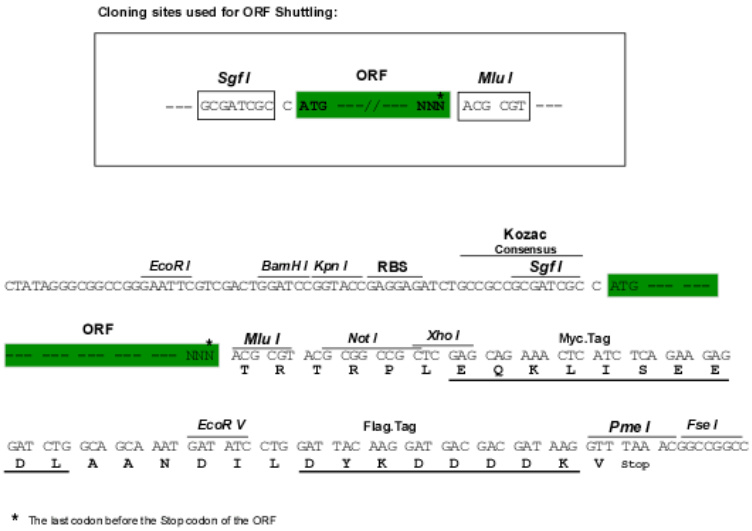
MEPKVAELKQKIEDTLCPFGFEVYPFQVAWYNELLPPAFHLPLPGPTLAFLVLSTPAMFDRALKPFLQSC
HLRMLTDPVDQCVAYHLGRVRESLPELQIEIIADYEVHPNRRPKILAQTAAHVAGAAYYYQRQDVEADPW
GNQRISGVCIHPRFGGWFAIRGVVLLPGIEVPDLPPRKPHDCVPTRADRIALLEGFNFHWRDWTYRDAVT
PQERYSEEQKAYFSTPPAQRLALLGLAQPSEKPSSPSPDLPFTTPAPKKPGNPSRARSWLSPRVSPPASP
GP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2413_g04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_015506

ORF Size: 846 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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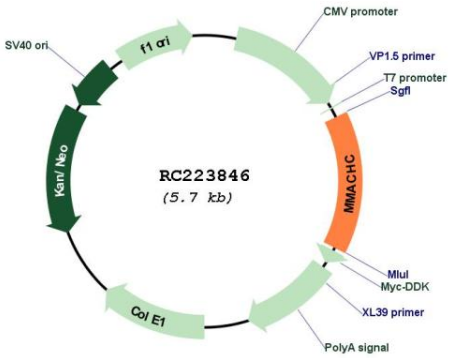
Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_015506.3
RefSeq Size:	2247 bp
RefSeq ORF:	849 bp
Locus ID:	25974
UniProt ID:	Q9Y4U1
Cytogenetics:	1p34.1
MW:	31.5 kDa
Gene Summary:	The exact function of the protein encoded by this gene is not known, however, its C-terminal region shows similarity to TonB, a bacterial protein involved in energy transduction for cobalamin (vitamin B12) uptake. Hence, it is postulated that this protein may have a role in the binding and intracellular trafficking of cobalamin. Mutations in this gene are associated with methylmalonic aciduria and homocystinuria type cblC. [provided by RefSeq, Oct 2009]

Product images:



Circular map for RC223846

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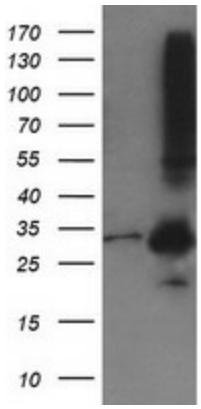
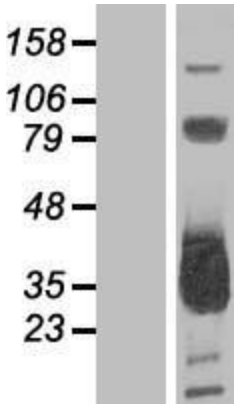
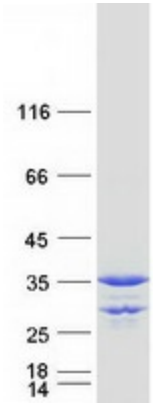


HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MMACHC (Cat# RC223846, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MMACHC(Cat# [TA504954]). Positive lysates [LY402444] (100ug) and [LC402444] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402444]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223846 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MMACHC protein (Cat# [TP323846]). The protein was produced from HEK293T cells transfected with MMACHC cDNA clone (Cat# RC223846) using MegaTran 2.0 (Cat# [TT210002]).

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