

**MMAA Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP9795a****Specification**

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**MMAA Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [Q8IVH4](#)**MMAA Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 166785**Other Names**

Methylmalonic aciduria type A protein, mitochondrial, 36--, MMAA

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**MMAA Antibody (N-term) Blocking Peptide - Protein Information****Name** MMAA ([HGNC:18871](#))**Function**

GTPase, binds and hydrolyzes GTP (PubMed: [28497574](http://www.uniprot.org/citations/28497574)), PubMed: [20876572](http://www.uniprot.org/citations/20876572), PubMed: [21138732](http://www.uniprot.org/citations/21138732), PubMed: [28943303](http://www.uniprot.org/citations/28943303)). Involved in intracellular vitamin B12 metabolism, mediates the transport of cobalamin (Cbl) into mitochondria for the final steps of adenosylcobalamin (AdoCbl) synthesis (PubMed: [28497574](http://www.uniprot.org/citations/28497574), PubMed: [20876572](http://www.uniprot.org/citations/20876572)). Functions as a G-protein chaperone that assists AdoCbl cofactor delivery from MMAB to the methylmalonyl-CoA mutase (MMUT) (PubMed: [28497574](http://www.uniprot.org/citations/28497574), PubMed: [20876572](http://www.uniprot.org/citations/20876572)). Plays a dual role as both a protectase and a reactivase for MMUT (PubMed: [21138732](http://www.uniprot.org/citations/21138732), PubMed: [28943303](http://www.uniprot.org/citations/28943303)). Protects MMUT from progressive inactivation by oxidation by decreasing the rate of the formation of the oxidized inactive cofactor hydroxocobalamin (OH<sub>2</sub>Cbl) (PubMed: [21138732](http://www.uniprot.org/citations/21138732), PubMed: [21138732](http://www.uniprot.org/citations/21138732)).

[28943303](http://www.uniprot.org/citations/28943303)). Additionally acts a reactivase by promoting the replacement of OH<sub>2</sub>Cbl by the active cofactor AdoCbl, restoring the activity of MMUT in the presence and hydrolysis of GTP (PubMed: [21138732](http://www.uniprot.org/citations/21138732), PubMed: [28943303](http://www.uniprot.org/citations/28943303)).

**Cellular Location**

Mitochondrion {ECO:0000269|PubMed:28943303, ECO:0000305}. Cytoplasm

**Tissue Location**

Widely expressed. Highest expression is observed in liver and skeletal muscle

**MMAA Antibody (N-term) Blocking Peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

**MMAA Antibody (N-term) Blocking Peptide - Images****MMAA Antibody (N-term) Blocking Peptide - Background**

The protein encoded by this gene is involved in the translocation of cobalamin into the mitochondrion, where it is used in the final steps of adenosylcobalamin synthesis. Adenosylcobalamin is a coenzyme required for the activity of methylmalonyl-CoA mutase. Defects in this gene are a cause of methylmalonic aciduria.

**MMAA Antibody (N-term) Blocking Peptide - References**

Honjo, R.S., et al. Genet Test Mol Biomarkers 13(2):181-183(2009)Merinero, B., et al. J. Inherit. Metab. Dis. 31(1):55-66(2008)Horster, F., et al. Pediatr. Res. 62(2):225-230(2007)Padovani, D., et al. J. Biol. Chem. 281(26):17838-17844(2006)Lerner-Ellis, J.P., et al. Hum. Mutat. 24(6):509-516(2004)