

## 45-1102: Mouse Monoclonal Antibody to Human MTR (Clone : 3H1D9)(Discontinued)

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	3H1D9
<b>Application :</b>	ELISA
<b>Reactivity :</b>	Human
<b>Gene :</b>	MTR
<b>Gene ID :</b>	4548
<b>Uniprot ID :</b>	Q99707
<b>Format :</b>	Purified
<b>Alternative Name :</b>	5-methyltetrahydrofolate--homocysteine methyltransferase, Vitamin-B12 dependent methionine synthase, MS
<b>Isotype :</b>	Mouse IgG2b,Kappa
<b>Immunogen Information :</b>	Recombinant Human MTR

### Description

MTR encodes the 5-methyltetrahydrofolate-homocysteine methyltransferase, which is also known as cobalamin-dependent methionine synthase, catalyzes the final step in methionine biosynthesis. Mutations in MTR have been identified as the underlying cause of methylcobalamin deficiency complementation group G. Alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. Among its related pathways are Metabolism and Cytochrome P450-arranged by substrate type. Catalyzing the transfer of a methyl group from methyl-cobalamin to homocysteine, yielding enzyme-bound cob(I) alamin and methionine. Subsequently, remethylating the cofactor using methyltetrahydrofolate. KO Validated Human MTR Antibody (3H1D9), mAb, Mouse is produced from a hybridoma resulting from the fusion of SP2/0 myeloma and B-lymphocytes obtained from a mouse immunized with recombinant human MTR.

### Product Info

<b>Amount :</b>	40 µg
<b>Purification :</b>	Protein A chromatography
<b>Content :</b>	0.5 mg/ml, lyophilized with PBS, pH 7.4, containing 0.02% sodium azide.
<b>Storage condition :</b>	The antibody is stable in lyophilized form if stored at -20°C or below. The reconstituted antibody can be stored for 2-3 weeks at 2-8°C. For long term storage, aliquot and store at -20°C or below. Avoid repeated freezing and thawing cycles.

### Application Note

ELISA detection: 0.005-0.05µg/ml  
Western blot: 1-2 µg/ml

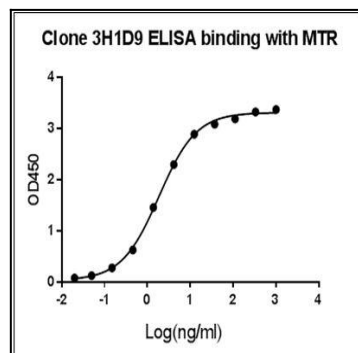


Figure-1 : ELISA binding of MTR Antibody (Clone: 3H1D9) with Human MTR recombinant protein, Coating antigen: MTR at 1  $\mu$ g/ml, MTR antibody dilution start from 1000 ng/ml, EC50= 1.86 ng/ml

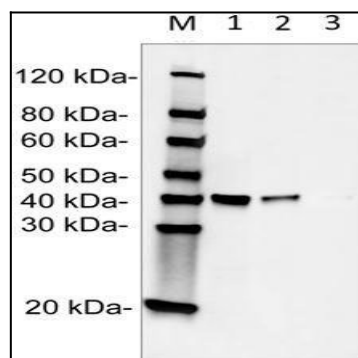


Figure-2 : Western Blot analysis of MTR Antibody (Clone: 3H1D9) at 1  $\mu$ g/ml on Human MTR recombinant protein (1-3: 25 ng, 5 ng, 1 ng), IRDye 800 conjugated Goat anti-Mouse IgG was used as Secondary Antibody at 0.125  $\mu$ g/ml.

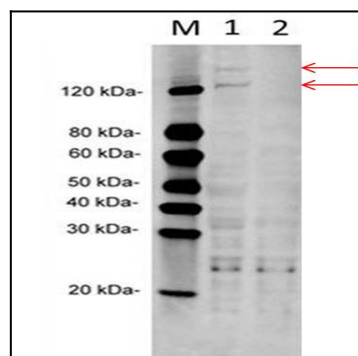


Figure-3 : Western Blot analysis of MTR Antibody (Clone: 3H1D9) at 1  $\mu$ g/ml on HeLa cell lysates, 1: Wild-type HeLa cell Lysate (100  $\mu$ g), 2: MTR knockout HeLa cell Lysate (100  $\mu$ g), IRDye 800 conjugated Goat anti-Mouse IgG was used as Secondary Antibody at 0.125  $\mu$ g/ml.

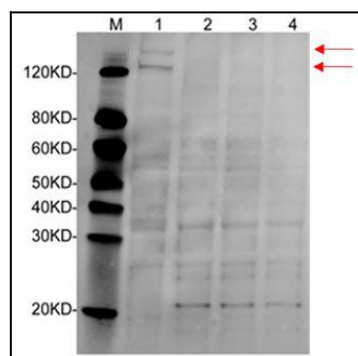


Figure-4 : Western Blot analysis of MTR Antibody (Clone: 3H1D9) at 1  $\mu$ g/ml on HeLa cell lysates, 1: Wild-type HeLa cell Lysate (50  $\mu$ g), 2-4: MTR knockout HeLa cell Lysate (50  $\mu$ g), IRDye 800 conjugated Goat anti-Mouse IgG was used as Secondary Antibody at 0.125  $\mu$ g/ml.

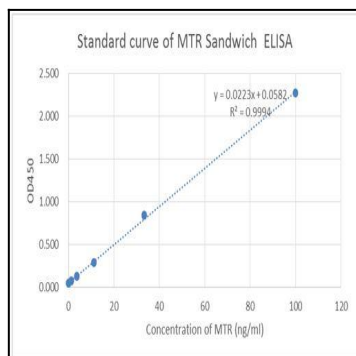


Figure-5 : Standard curve of MTR Sandwich ELISA. The MTR Sandwich ELISA assay was developed by using Human MTR Antibody (Clone: 3H1D9) and Biotin conjugated Human MTR Antibody (Clone: 11G1D7) as capture and detect antibody, respectively, The sensitivity is <1 ng/ml and the detection range is 0-100 ng/ml.