

# Human MTR Antibody (11G1D7), mAb, Mouse

## PRODUCT INFORMATION

### 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 GenScript Human MTR Antibody (11G1D7), 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.

### Specificity

The product is specific for human MTR. This antibody binds with recombinant MTR protein in ELISA and Endogenous MTR in western blot.

### Concentration

0.5 mg/ml, lyophilized with PBS, pH 7.4, containing 0.02% sodium azide. (It could be customized for bulk order.)

### Note

GenScript can customize this product per customer's request including product size, buffer components, etc.

### Reconstitution

Reconstitute the lyophilized antibody with deionized water (or equivalent) to a final concentration of 0.5 mg/ml.

### Storage

The lyophilized product remains stable up to 1 year at -20 °C from date of receipt. Upon reconstitution, it can be stored for 2-3 weeks at 2-8 °C or for up to 12 months at -20 °C or below. Avoid repeated freezing and thawing cycles.

### Applications

Working concentrations for specific applications should be determined by the investigators. The appropriate concentrations may be affected by secondary antibody affinity, antigen concentration, the sensitivity of the method of detection, temperature, the length of the incubations, and other factors. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

**Cat. No.:** A01878-40

**Host:** Mouse

**Size:** 40 µg

**Ig Subclass:** IgG1,k

**Clone:** 11G1D7

**Immunogen:** Recombinant Human MTR

**UniProt Accession:** Q99707

**Gene ID:** 4548

**Purification:** Protein A affinity column

**Conjugation:** Unconjugated

**Version:** 06/15/2017

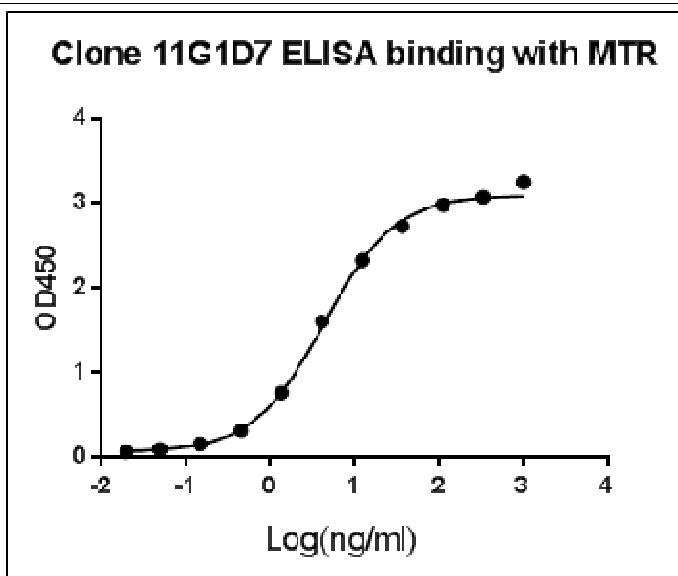
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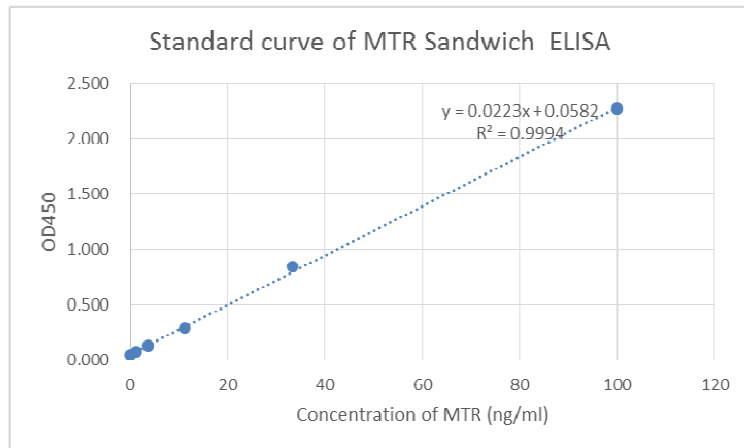
Toll-Free: 1-877-436-7274 Tel: 1-732-885-9188 Fax: 1-732-210-0262 Email: [product@genscript.com](mailto:product@genscript.com) Web: [www.genscript.com](http://www.genscript.com)

ELISA detection: 0.01-0.1 µg/ml  
 Western blot: 1 µg/ml  
 Other applications: user-optimized

### Example



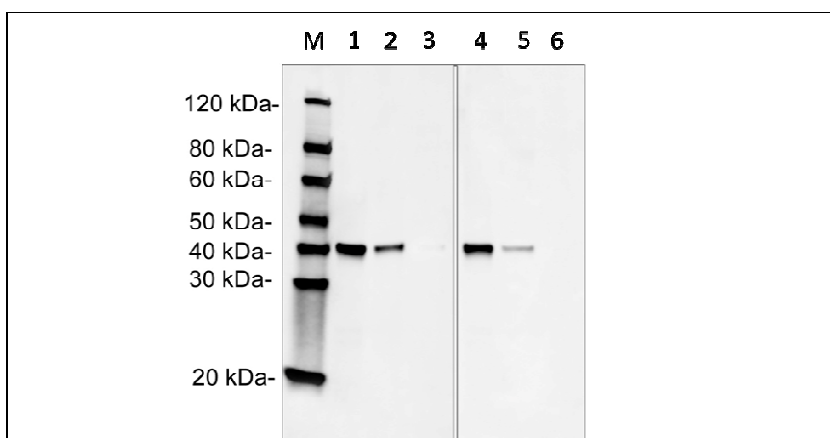
ELISA binding of **Human MTR Antibody (11G1D7)** (GenScript, A01878-40) with Human MTR recombinant protein.  
 Coating antigen: MTR, 1 µg/ml.  
 MTR antibody dilution start from 1000 ng/ml,  
 EC50= 4.326 ng/ml.



Standard curve of MTR Sandwich ELISA. The MTR Sandwich ELISA assay is developed by using **Human MTR Antibody (11G1D7)** (GenScript, A01878-40) and Biotin conjugated **Human MTR Antibody (3H1D9)** (GenScript, A01877-40) as capture and detect antibody, respectively.  
 The sensitivity is <1 ng/ml and the detection range is 0-100 ng/ml.

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KO and Independent Western Blot validation of **Human MTR Antibody (11G1D7)** (GenScript, A01878-40) and **Human MTR Antibody (3H1D9)** (GenScript, A01877-40) with Human MTR recombinant protein.

Lane 1: 25 ng Human MTR recombinant protein

Lane 2: 5 ng Human MTR recombinant protein

Lane 3: 1 ng Human MTR recombinant protein

Lane 4: 25 ng Human MTR recombinant protein

Lane 5: 5 ng Human MTR recombinant protein

Lane 6: 1 ng Human MTR recombinant protein

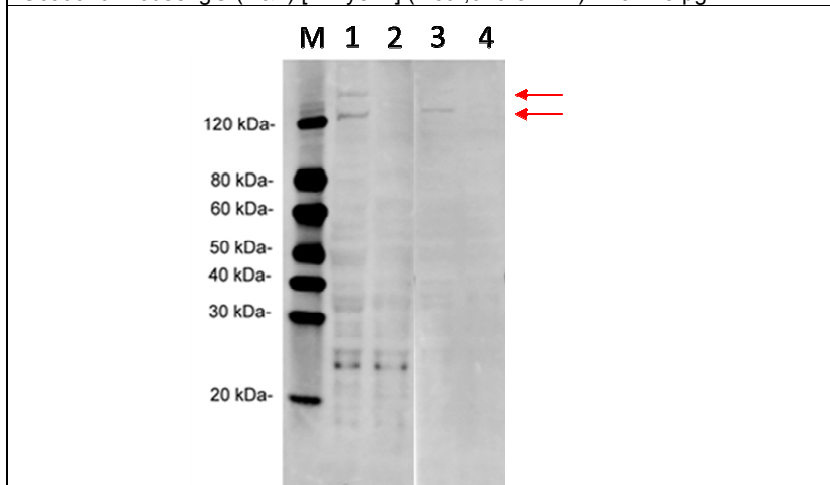
Primary Antibody:

Lane 1~3: Human MTR Antibody (3H1D9) (GenScript, A01877-40) 1 µg/ml

Lane 4~6: Human MTR Antibody (11G1D7) (GenScript, A01878-40) 1 µg/ml

Secondary Antibody:

Goat anti-Mouse IgG (H&L) [IRDye<sup>800</sup>] (Licor,926-32211) 0.125 µg/ml



KO and Independent Western Blot validation of **Human MTR Antibody (11G1D7)** (GenScript, A01878-40) and **Human MTR Antibody (3H1D9)** (GenScript, A01877-40) with HeLa cell lysates.

Lane 1: 100 µg Wild-type HeLa cell Lysate

Lane 2: 100 µg MTR knockout HeLa cell Lysate

Lane 3: 100 µg Wild-type HeLa cell Lysate

Lane 4: 100 µg MTR knockout HeLa cell Lysate

Primary Antibody:

Lane 1~2: Human MTR Antibody (3H1D9) (GenScript, A01877-40) 1 µg/ml

Lane 3~4: Human MTR Antibody (11G1D7) (GenScript, A01878-40) 1 µg/ml

Secondary Antibody:

Goat anti-Mouse IgG (H&L) [IRDye<sup>800</sup>] (Licor,926-32211) 0.125 µg/ml

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