

Store at  
-20°C  
#68796**Methionine Synthase (D3D6H) Rabbit mAb**
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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	140	Rabbit IgG	#Q99707	4548

**Product Usage Information****Application**

Western Blotting

**Dilution**

1:1000

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

**Specificity/Sensitivity**

Methionine Synthase (D3D6H) Rabbit mAb recognizes endogenous levels of total methionine synthase protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro1178 of human methionine synthase protein.

**Background**

One-carbon metabolism includes enzymatic reactions involving the transfer of one-carbon groups mediated by folate cofactor. The activated one-carbon groups are used by various metabolic pathways, including purine synthesis, thymidine synthesis, and remethylation of homocysteine to methionine (1). One of the enzymes in one-carbon metabolism, methionine synthase, catalyzes the conversion of 5-methyltetrahydrofolate and homocysteine to tetrahydrofolate and methionine. Methionine is further converted to S-adenosylmethionine (SAM) (1, 2). S-adenosylmethionine (SAM) is a major reactive methyl carrier and plays a critical role in epigenetic regulation (2, 3).

**Background References**

1. Ducker, G.S. and Rabinowitz, J.D. (2017) *Cell Metab* 25, 27-42.
2. Padmanabhan, N. et al. (2013) *Cell* 155, 81-93.
3. Su, X. et al. (2016) *Curr Opin Chem Biol* 30, 52-60.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key****W:** Western Blotting**Cross-Reactivity Key****H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey**Trademarks and Patents**

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