

Goat Anti-MTHFD1 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1689a**Specification**

Goat Anti-MTHFD1 Antibody - Product Information

Application	WB
Primary Accession	P11586
Other Accession	NP_005947 , 4522 , 108156 (mouse) , 64300 (rat)
Reactivity	Human
Predicted	Mouse, Rat
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	101531

Goat Anti-MTHFD1 Antibody - Additional Information**Gene ID** 4522**Other Names**

C-1-tetrahydrofolate synthase, cytoplasmic, C1-THF synthase, Methylenetetrahydrofolate dehydrogenase, 1.5.1.5, Methenyltetrahydrofolate cyclohydrolase, 3.5.4.9, Formyltetrahydrofolate synthetase, 6.3.4.3, C-1-tetrahydrofolate synthase, cytoplasmic, N-terminally processed, MTHFD1, MTHFC, MTHFD

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-MTHFD1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-MTHFD1 Antibody - Protein Information**Name** MTHFD1**Synonyms** MTHFC, MTHFD**Function**

Trifunctional enzyme that catalyzes the interconversion of three forms of one-carbon-substituted

tetrahydrofolate: (6R)-5,10- methylene-5,6,7,8-tetrahydrofolate, 5,10-methenyltetrahydrofolate and (6S)-10-formyltetrahydrofolate (PubMed:1881876, PubMed:10828945, PubMed:18767138). These derivatives of tetrahydrofolate are differentially required in nucleotide and amino acid biosynthesis, (6S)-10-formyltetrahydrofolate being required for purine biosynthesis while (6R)-5,10-methylene-5,6,7,8-tetrahydrofolate is used for serine and methionine biosynthesis for instance (PubMed:25633902, PubMed:18767138).

Cellular Location

Cytoplasm.

Tissue Location

Ubiquitous.

Goat Anti-MTHFD1 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Goat Anti-MTHFD1 Antibody - Images



AF1689a (1 µg/ml) staining of Human Substantia Nigra lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-MTHFD1 Antibody - Background

This gene encodes a protein that possesses three distinct enzymatic activities, 5,10-methylenetetrahydrofolate dehydrogenase, 5,10-methenyltetrahydrofolate cyclohydrolase and 10-formyltetrahydrofolate synthetase. Each of these activities catalyzes one of three sequential reactions in the interconversion of 1-carbon derivatives of tetrahydrofolate, which are substrates for methionine, thymidylate, and de novo purine syntheses. The trifunctional enzymatic activities are

conferred by two major domains, an aminoterminal portion containing the dehydrogenase and cyclohydrolase activities and a larger synthetase domain.

Goat Anti-MTHFD1 Antibody - References

Genetic variants in one-carbon metabolism-related genes contribute to NSCLC prognosis in a Chinese population. Jin G, et al. Cancer, 2010 Aug 24. PMID 20737570.

Maternal genes and facial clefts in offspring: a comprehensive search for genetic associations in two population-based cleft studies from Scandinavia. Jugessur A, et al. PLoS One, 2010 Jul 9. PMID 20634891.

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.

A candidate gene study of folate-associated one carbon metabolism genes and colorectal cancer risk. Levine AJ, et al. Cancer Epidemiol Biomarkers Prev, 2010 Jul. PMID 20615890.

Genetic variation in TYMS in the one-carbon transfer pathway is associated with ovarian carcinoma types in the Ovarian Cancer Association Consortium. Kelemen LE, et al. Cancer Epidemiol Biomarkers Prev, 2010 Jul. PMID 20570913.