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Goat Anti-MTR Antibody

Peptide-affinity purified goat antibody
Catalog # AF1694a

Specification

Goat Anti-MTR Antibody - Product Information

Application	**WB, IHC**
Primary Accession	Q99707
Other Accession	NP_000245, 4548, 81522 (rat)
Reactivity	**Human**
Predicted	**Mouse, Rat, Pig, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**140527**

Goat Anti-MTR Antibody - Additional Information

Gene ID 4548

Other Names
Methionine synthase, 2.1.1.13, 5-methyltetrahydrofolate--homocysteine methyltransferase, Vitamin-B12 dependent methionine synthase, MS, MTR

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-MTR Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-MTR Antibody - Protein Information

Name MTR {ECO:0000303|PubMed:27771510, ECO:0000312|HGNC:HGNC:7468}

Function
Catalyzes the transfer of a methyl group from methylcob(III)alamin (MeCbl) to homocysteine, yielding enzyme-bound cob(I)alamin and methionine in the cytosol (PubMed:16769880, PubMed:27771510, PubMed:17288554). MeCbl is an

active form of cobalamin (vitamin B12) used as a cofactor for methionine biosynthesis. Cob(I)alamin form is regenerated to MeCbl by a transfer of a methyl group from 5-methyltetrahydrofolate (PubMed:16769880, PubMed:27771510, PubMed:17288554). The processing of cobalamin in the cytosol occurs in a multiprotein complex composed of at least MMACHC, MMADHC, MTRR (methionine synthase reductase) and MTR which may contribute to shuttle safely and efficiently cobalamin towards MTR in order to produce methionine (PubMed:16769880, PubMed:27771510).

Cellular Location
Cytoplasm.

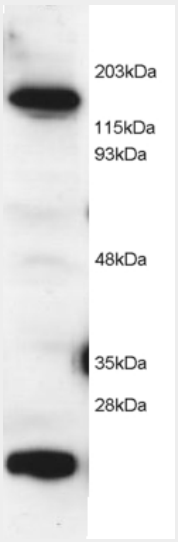
Tissue Location
Widely expressed. Expressed at the highest levels in pancreas, heart, brain, skeletal muscle and placenta (PubMed:8968737, PubMed:8968735). Expressed at lower levels in lung, liver and kidney (PubMed:8968737, PubMed:8968735)

Goat Anti-MTR Antibody - Protocols

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

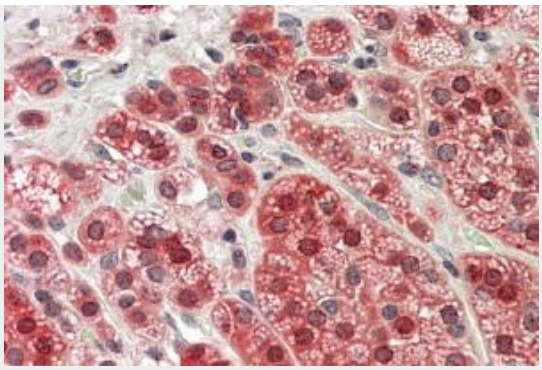
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-MTR Antibody - Images



AF1694a (2 µg/ml) staining of Hela lysate (RIPA buffer, 1.4E5 cells per lane). Detected by western blot using chemiluminescence.

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AF1694a (3.8 µg/ml) staining of paraffin embedded Human Adrenal Gland. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

Goat Anti-MTR Antibody - Background

MTR encodes the enzyme 5-methyltetrahydrofolate-homocysteine methyltransferase. This enzyme, 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.

Goat Anti-MTR 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.
Association of genetic variation in cystathionine-beta-synthase and arsenic metabolism. Porter KE, et al. Environ Res, 2010 Aug. PMID 20670920.
Associations of various gene polymorphisms with toxicity in colorectal cancer patients receiving oral uracil and tegafur plus leucovorin: a prospective study. Tsunoda A, et al. Ann Oncol, 2010 Jul 19. PMID 20647221.
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 Thiazolinedinedione-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.