10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Mouse DHFR Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7378b

Product Information

Application	IHC-P, WB, E
Primary Accession	P00375
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19204
Calculated MW	21606
Antigen Region	135-164

Additional Information

Gene ID	13361
Other Names	Dihydrofolate reductase, Dhfr
Target/Specificity	This Mouse DHFR antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 135-164 amino acids from the C-terminal region of mouse DHFR.
Dilution	IHC-P~~1:100~500 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Mouse DHFR Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Dhfr {ECO:0000312|MGI:MGI:94890}
Function	Catalyzes the reduction of 7,8-dihydrofolate (DHF) to 5,6,7,8-tetrahydrofolate in a NADPH-dependent manner (PubMed:19748785, PubMed:25980602). Key enzyme in folate metabolism. Contributes to the nuclear and mitochondrial de novo thymidylate biosynthesis pathway

(PubMed:25980602). Catalyzes an essential reaction for de novo glycine and purine synthesis, and for DNA precursor synthesis (PubMed:25980602). Binds its own mRNA and that of DHFR2 (By similarity).

Cellular Location

Mitochondrion. Cytoplasm. Nucleus {ECO:0000250|UniProtKB:P00374}. Note=Localized to the nucleus during S and G2/M phase sof the cell cycle. As a component of the de novo thymidylate synthesis complex, localizes specifically to replication forks during DNA synthesis (By similarity) {ECO:0000250|UniProtKB:P00374}

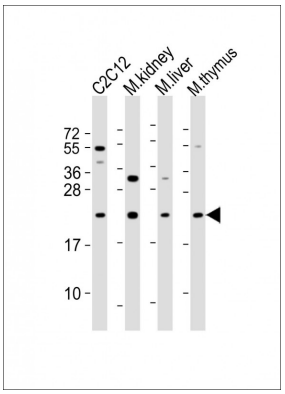
Background

Dihydrofolate reductase converts dihydrofolate into tetrahydrofolate, a methyl group shuttle required for the de novo synthesis of purines, thymidylic acid, and certain amino acids. While the functional dihydrofolate reductase gene has been mapped to chromosome 5, multiple intronless processed pseudogenes or dihydrofolate reductase-like genes have been identified on separate chromosomes. Dihydrofolate reductase deficiency has been linked to megaloblastic anemia.

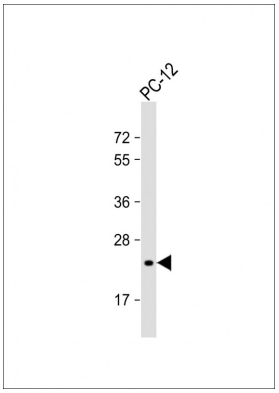
References

Cody,V., Proteins 65 (4), 959-969 (2006)
Stone,D., J. Biol. Chem. 254 (2), 480-488 (1979)

Images

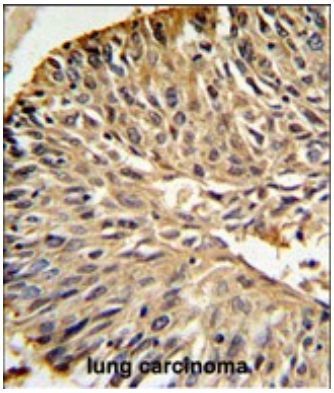


All lanes : Anti-DHFR Antibody (C-term) at 1:2000 dilution Lane 1: C2C12 whole cell lysate Lane 2: mouse kidney lysate Lane 3: mouse liver lysate Lane 4: mouse thymus lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 22 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Anti-DHFR Antibody (C-term) at 1:2000 dilution + PC-12 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 22 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

DHFR Antibody (C-term) (Cat.# AP7378b) IHC analysis in formalin fixed and paraffin embedded human lung carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the DHFR Antibody (C-term) for immunohistochemistry. Clinical relevance has not been



evaluated.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.