Product Name: MTHFR Rabbit Polyclonal Antibody
Catalog #: APRab14212
For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ELISA
Reactivity	Human,Mouse,Monkey
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:50-1:300,ELISA 1:2000-1:20000
Molecular Weight	75kDa

Antigen Information

Gene Name	MTHFR
Alternative Names	MTHFR; Methylenetetrahydrofolate reductase
Gene ID	4524.0
SwissProt ID	P42898
Immunogen	The antiserum was produced against synthesized peptide derived from human MTHFR. AA range:314-363

Background

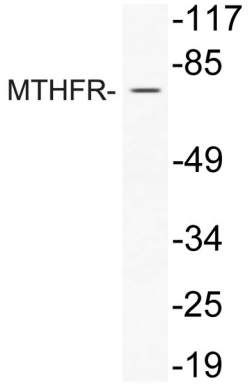
The protein encoded by this gene catalyzes the conversion of 5,10-methylenetetrahydrofolate to 5-methyltetrahydrofolate, a

co-substrate for homocysteine remethylation to methionine. Genetic variation in this gene influences susceptibility to occlusive vascular disease, neural tube defects, colon cancer and acute leukemia, and mutations in this gene are associated with methylenetetrahydrofolate reductase deficiency.[provided by RefSeq, Oct 2009],catalytic activity:5-methyltetrahydrofolate + NAD(P)(+) = 5,10-methylenetetrahydrofolate + NAD(P)H.,cofactor:FAD.,disease:Defects in MTHFR are the cause of methylenetetrahydrofolate reductase deficiency (MTHFRD) [MIM:236250]. MTHFRD is autosomal recessive disorder with a wide range of features including homocysteinuria, homocysteinemia [MIM:603174], developmental delay, severe mental retardation, perinatal death, psychiatric disturbances, and later-onset neurodegenerative disorders.,disease:Defects in MTHFR may be a cause of susceptibility to folate-sensitive neural tube defects (folate-sensitive NTD) [MIM:601634]. The most common NTDs are open spina bifida (myelomeningocele) and anencephaly.,disease:Defects in MTHFR may be a cause of susceptibility to ischemic stroke [MIM:601367]; also known as cerebrovascular accident or cerebral infarction. A stroke is an acute neurologic event leading to death of neural tissue of the brain and resulting in loss of motor, sensory and/or cognitive function. Ischemic strokes, resulting from vascular occlusion, is considered to be a highly complex disease consisting of a group of heterogeneous disorders with multiple genetic and environmental risk factors.,enzyme regulation:Allosterically regulated by S-adenosylmethionine.,function:Catalyzes the conversion of 5,10-methylenetetrahydrofolate to 5-methyltetrahydrofolate, a co-substrate for homocysteine remethylation to methionine.,online information:Methylenetetrahydrofolate reductase entry,online information:The Singapore human mutation and polymorphism database,pathway:One-carbon metabolism; tetrahydrofolate pathway.,polymorphism:Genetic variation in MTHFR influences susceptibility to occlusive vascular disease, neural tube defects (NTD), colon cancer and acute leukemia.,similarity:Belongs to the methylenetetrahydrofolate reductase family.,subunit:Homodimer.,

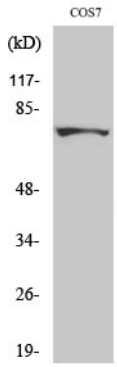
Research Area

One carbon pool by folate;Methane metabolism;

Image Data



Western blot analysis of lysate from COLO205 cells treated with Forskolin, using MTHFR antibody.



Western Blot analysis of various cells using MTHFR Polyclonal Antibody