

Product name:	MTHFR Rabbit Polyclonal Antibody
Cat number:	ABN14212
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human MTHFR. AA range:314-363
Reactivity:	Human,Mouse,Monkey
Applications:	WB 1:500-1:2000,IHC 1:50-1:300,ELISA 1:2000-1:20000
Molecular Weight:	75kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

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.,