

For Research Use Only

MTHFR Recombinant antibody

Catalog Number:83372-7-RR



Basic Information

Catalog Number: 83372-7-RR	GenBank Accession Number: BC053509	Purification Method: Protein A purification
Size: 100ul , Concentration: 1000 ug/ml by Nanodrop;	GeneID (NCBI): 4524	CloneNo.: 240348C12
Source: Rabbit	UNIPROT ID: P42898	Recommended Dilutions: WB 1:5000-1:50000
Isotype: IgG	Full Name: 5,10-methylenetetrahydrofolate reductase (NADPH)	
Immunogen Catalog Number: AG14970	Calculated MW: 656 aa, 75 kDa	
	Observed MW: 75-78 kDa	

Applications

Tested Applications: WB, FC (Intra), ELISA	Positive Controls: WB : Daudi cells, Raji cells, Jurkat cells
Species Specificity: human	

Background Information

5,10-Methylenetetrahydrofolate reductase (MTHFR) is a crucial enzyme in the folate metabolic pathway with a key role in generating methyl groups. MTHFR reduces 5,10-methylenetetrahydrofolate (5,10-methyleneTHF) to 5-methylTHF, the primary carbon donor for methionine production from homocysteine. In humans and mice studies, mutations and polymorphisms in MTHFR are associated with impaired spermatogenesis and male infertility. It has been reported that MTHFR is highly phosphorylated under unperturbed conditions and T34 is the priming phosphorylation site. MTHFR gene has two promoters and isoform (70 kDa and 77 kDa). Although the major form of MTHFR is 77kDa in most tissues, a second isoform of 70kDa was observed after western blotting of human fetal liver and porcine liver. (PMID: 24769206, PMID: 34128976, PMID: 18615588)

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

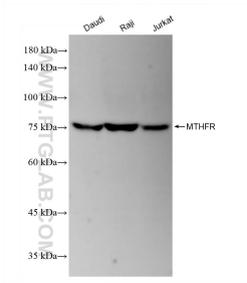
For technical support and original validation data for this product please contact:

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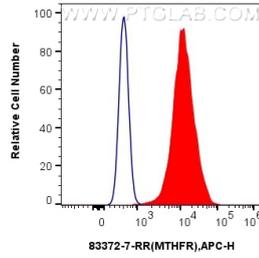
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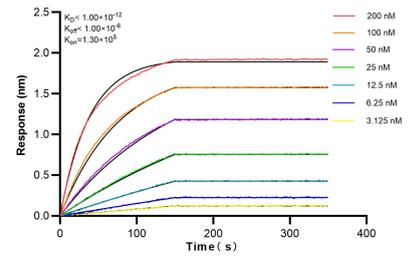
Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 83372-7-RR (MTHFR antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



1×10^6 HeLa cells were intracellularly stained with 0.25 μ g MTHFR Recombinant antibody (83372-7-RR, Clone:240348C12) and APC-Conjugated Goat Anti-Rabbit IgG(H+L)(red), or 0.25 μ g Isotype Control (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Biolayer interferometry (BLI) kinetic assays of 83372-7-RR against Human MTHFR were performed. The affinity constant is below 1 pM.