

For Research Use Only

MTHFD2 Recombinant monoclonal antibody

Catalog Number:86608-3-RR



Basic Information

Catalog Number:

86608-3-RR

Size:

100ul , Concentration: 1000 µg/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG2911

GenBank Accession Number:

BC017054

GeneID (NCBI):

10797

UNIPROT ID:

P13995

Full Name:

methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 2, methenyltetrahydrofolate cyclohydrolase

Calculated MW:

350 aa, 38 kDa

Observed MW:

33-38 kDa

Purification Method:

Protein A purification

CloneNo.:

251431F2

Recommended Dilutions:

WB: 1:5000-1:50000

IF/ICC: 1:250-1:1000

FC (Intra): 0.25 ug per 10⁶ cells in a 100 µl suspension

Applications

Tested Applications:

WB, IF/ICC, FC (Intra), ELISA

Species Specificity:

human, mouse, rat

Positive Controls:

WB : HEK-293T cells, rat testis tissue, Jurkat cells, mouse testis tissue

IF/ICC : HepG2 cells,

FC (Intra) : A549 cells,

Background Information

Methylenetetrahydrofolate dehydrogenase 2 (MTHFD2) is a folate-coupled mitochondrial metabolic enzyme characterized by methylenetetrahydrofolate dehydrogenase and cyclohydrolase activity. It was demonstrated that suppression of MTHFD2 inhibits methylation reactions, decreases protein synthesis and disrupts redox homeostasis, which may ultimately result in significant changes in cellular metabolic phenotype. MTHFD2 is reported to be up-regulated in various tumours, such as lung adenocarcinoma(PMID: 34121323) and breast cancer(PMID: 34007312).

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

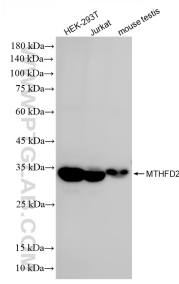
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

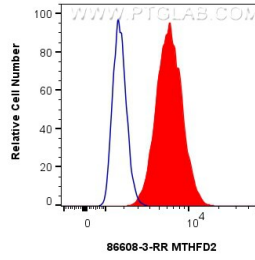
E: proteintech@ptglab.com
W: ptglab.com

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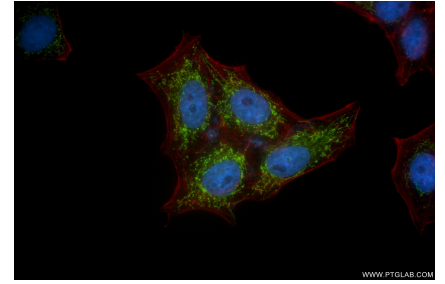
Selected Validation Data



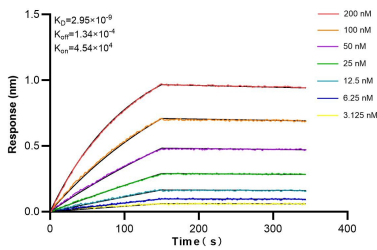
Various lysates were subjected to SDS PAGE followed by western blot with 86608-3-RR (MTHFD2 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



1x10⁶ A549 cells were intracellularly stained with 0.25 ug MTHFD2 Recombinant monoclonal antibody (86608-3-RR, Clone:251431F2) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.25 ug Isotype Control (blue). Cells were fixed and permeabilized with Intracellular Flow Cytometry Fixation & Permeabilization Buffer Kit (PF00019).



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using MTHFD2 antibody (86608-3-RR, Clone: 251431F2) at dilution of 1:500 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).



Biolayer interferometry (BLI) kinetic assays of 86608-3-RR against Human MTHFD2 were performed. The affinity constant is 2.95 nM.