

# MTHFS (YZ-M): sc-100563

## BACKGROUND

MTHFS (5-formyltetrahydrofolate cyclo-ligase) is a cytosolic protein involved in the formate metabolic process. MTHFS can account for up to thirty percent of a cells cytoplasmic folate derivatives. MTHFS, with a magnesium cofactor, catalyzes the ATP-dependent reaction that reduces 5-formyltetrahydrofolate to 5,10-methenyltetrahydrofolate. Folate, a water soluble B vitamin, is an essential molecule for DNA replication. During DNA replication 5,10-methenyltetrahydrofolate is oxidized and MTHFS is responsible for resetting the molecule. Due to its metabolic importance, a deficiency in folate can lead to numerous disease states.

## REFERENCES

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## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## CHROMOSOMAL LOCATION

Genetic locus: MTHFS (human) mapping to 15q25.1.

## SOURCE

MTHFS (YZ-M) is a mouse monoclonal antibody raised against recombinant MTHFS of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

MTHFS (YZ-M) is recommended for detection of MTHFS of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MTHFS siRNA (h): sc-62649, MTHFS shRNA Plasmid (h): sc-62649-SH and MTHFS shRNA (h) Lentiviral Particles: sc-62649-V.

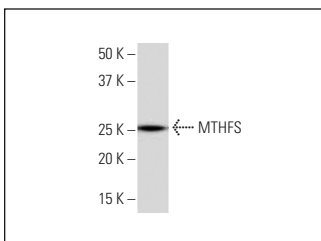
Molecular Weight of MTHFS: 25 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



MTHFS (YZ-M): sc-100563. Western blot analysis of MTHFS expression in HeLa whole cell lysate.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.