

Anti-MTHFD2 Antibody Picoband®

Catalog Number: A06465-2

About MTHFD2

This gene encodes a nuclear-encoded mitochondrial bifunctional enzyme with methylenetetrahydrofolate dehydrogenase and methenyltetrahydrofolate cyclohydrolase activities. The enzyme functions as a homodimer and is unique in its absolute requirement for magnesium and inorganic phosphate. Formation of the enzyme-magnesium complex allows binding of NAD. Alternative splicing results in two different transcripts, one protein-coding and the other not protein-coding. This gene has a pseudogene on chromosome 7.

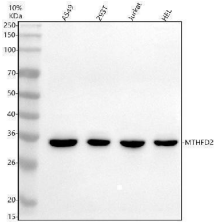
Overview

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| Product Name | Anti-MTHFD2 Antibody Picoband® |
| Reactive Species | Human |
| Description | Boster Bio Anti-MTHFD2 Antibody Picoband® catalog # A06465-2. Tested in WB, Flow Cytometry, ELISA applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance. |
| Application | ELISA, Flow Cytometry, WB |
| Clonality | Polyclonal |
| Formulation | Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ . |
| Storage Instructions | At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing. |
| Host | Rabbit |
| Uniprot ID | P13995 |

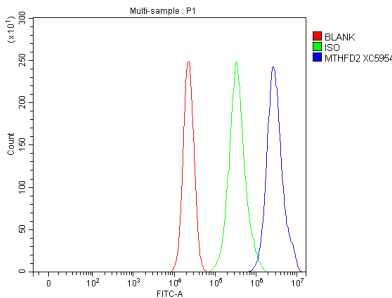
Technical Details

| | |
|---------------------|--|
| Immunogen | E.coli-derived human MTHFD2 recombinant protein (Position: R13-N350). Human MTHFD2 shares 92.9% amino acid (aa) sequence identity with mouse MTHFD2. |
| Form | Lyophilized |
| Concentration | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. |
| Purification | Immunogen affinity purified. |
| Suggested Dilutions | Western blot, 0.25-0.5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10 ⁶ cells, Human ELISA, 0.1-0.5 ug/ml |

Anti-MTHFD2 Antibody Picoband® (A06465-2) Images



Western blot analysis of MTHFD2 using anti-MTHFD2 antibody (A06465-2). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human A549 whole cell lysates, Lane 2: human 293T whole cell lysates, Lane 3: human Jurkat whole cell lysates, Lane 4: human HEL whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-MTHFD2 antigen affinity purified polyclonal antibody (A06465-2) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for MTHFD2 at approximately 35 kDa. The expected band size for MTHFD2 is at 38 kDa.



Flow Cytometry analysis of A549 cells using anti-MTHFD2 antibody (A06465-2). Overlay histogram showing A549 cells stained with A06465-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-MTHFD2 Antibody (A06465-2, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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Anti-MTHFD2 Antibody

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