bs-3996R **[Primary Antibody]**

MDH1 Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 4190 **SWISS:** P40925

Target: MDH1

Immunogen: KLH conjugated synthetic peptide derived from human MDH1: 265-334/334.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: Malate dehydrogenase catalyzes the reversible oxidation of malate to oxaloacetate, utilizing the NAD/NADH cofactor system in the citric acid cycle. Malate dehydrogenase 1 (MDH1) is localized to the cytoplasm and may play pivotal roles in the malate-aspartate shuttle that operates in the metabolic coordination between cytosol and mitochondria.

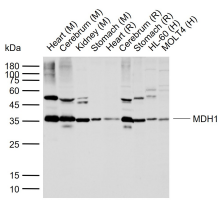
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (0.2ug/Test)

Reactivity: Human, Mouse, Rat (predicted: Rabbit, Pig, Cow, Chicken, Dog, Horse)

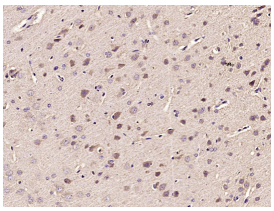
Predicted MW.: 36 kDa

Subcellular Location: Cytoplasm

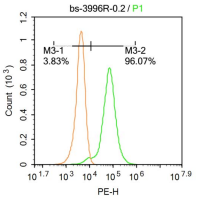
VALIDATION IMAGES



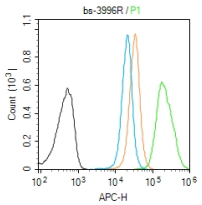
Sample: Lane 1: Mouse Heart tissue lysates Lane 2: Mouse Cerebrum tissue lysates Lane 3: Mouse Kidney tissue lysates Lane 4: Mouse Stomach tissue lysates Lane 5: Rat Heart tissue lysates Lane 6: Rat Cerebrum tissue lysates Lane 7: Rat Stomach tissue lysates Lane 8: Human HL-60 cell lysates Lane 9: Human MOLT4 cell lysates Primary: Anti-MDH1 (bs-3996R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 36 kDa Observed band size: 36 kDa



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by microwave in sodium citrate buffer (pH6.0) ; Block endogenous peroxidase by 3% hydrogen peroxide for 30 minutes; Blocking buffer (3% BSA) at RT for 30min; Antibody incubation with (MDH1) Polyclonal Antibody, Unconjugated (bs-3996R) at 1:400 overnight at 4°C, followed by conjugation to the secondary antibody (labeled with HRP)and DAB staining.



Blank control:Molt-4. Primary Antibody (green line): Rabbit Anti-MDH1 antibody (bs-3996) Dilution: 0.2µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-PE Dilution: 0.2µg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 0.1% PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



Blank control (Black line): Molt4 (Black). Primary Antibody (green line):Rabbit Anti-DMT1 antibody (bs-3996R) Dilution: 1µg /10^6 cells; Isotype

Control Antibody (orange line): Rabbit IgG . Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF647 Dilution: 1µg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

SELECTED CITATIONS

- **[IF=19.328]** Patricia Altea-Manzano. et al. Reversal of mitochondrial malate dehydrogenase 2 enables anaplerosis via redox rescue in respiration-deficient cells. MOL CELL. 2022 Nov;: WB ;Human. 36327975
- **[IF=6.1]** Paul, Subhojit, et al. "STAT3-RXR-Nrf2 activates systemic redox and energy homeostasis upon steep decline in pO 2 gradient." Redox Biology (2017). WB ;="Rat". 29078168