

Rabbit Anti-MCT1 antibody

SL10249R

Product Name MCT1

Chinese Name 单羧酸 Transporter-1 抗体

Alias monocarboxylate transporter 1; Malignant T cell amplified sequence 1; MCT 1; MCT1; MCTS 1; MCTS1; Oncogene MCT 1; Oncogene MCT1; SLC16A1; FLJ36745; HHF7; MCT; MGC44475; monocarboxylate transporter; Monocarboxylate transporter isoform 1; Monocarboxylic acid transporter 1; SLC16A1; SLC16A1 protein; Solute carrier family 16 (monocarboxylic acid transporters) member 1; Solute carrier family 16 member 1 (monocarboxylic acid transporter 1); Solute carrier family 16 member 1; MOT1_HUMAN.

Research Area immunology Transporter Exchange protein

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human, Mouse, Rat, (predicted: Dog, Pig, Cow, Horse, Rabbit, Guinea Pig,)
WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1 μ g/Test
(Paraffin sections need antigen repair)

Applications not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 55kDa

Cellular localization The cell membrane

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human MCT1: 251-350/500
<Extracellular>

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.



Storage	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed The protein encoded by this gene is a proton-linked monocarboxylate transporter that catalyzes the movement of many monocarboxylates, such as lactate and pyruvate, across the plasma membrane. Mutations in this gene are associated with erythrocyte lactate transporter defect. Alternatively spliced transcript variants have been found for this gene.[provided by RefSeq, Oct 2009] Function: Proton-linked monocarboxylate transporter. Catalyzes the rapid transport across the plasma membrane of many monocarboxylates such as lactate, pyruvate, branched-chain oxo acids derived from leucine, valine and isoleucine, and the ketone bodies acetoacetate, beta-hydroxybutyrate and acetate. Subcellular Location: Cell membrane; Multi-pass membrane protein. Tissue Specificity: Widely expressed in normal and in cancer cells.
Product Detail	DISEASE: Defects in SLC16A1 are the cause of symptomatic deficiency in lactate transport (SDLT) [MIM:245340]; also known as erythrocyte lactate transporter defect. Deficiency of lactate transporter may result in an acidic intracellular environment created by muscle activity with consequent degeneration of muscle and release of myoglobin and creatine kinase. This defect might compromise extreme performance in otherwise healthy individuals. Defects in SLC16A1 are the cause of familial hyperinsulinemic hypoglycemia type 7 (HHF7) [MIM:610021]; also known as exercise-induced hyperinsulinemic hypoglycemia. HHF7 is a dominantly inherited hypoglycemic disorder characterized by inappropriate insulin secretion during anaerobic exercise or on pyruvate load. Similarity: Belongs to the major facilitator superfamily. Monocarboxylate porter (TC 2.A.1.13) family. SWISS: P53985 Gene ID: 6566

Database links:

[Entrez Gene: 6566](#) Human

[Entrez Gene: 20501](#) Mouse

[Omid: 600682](#) Human

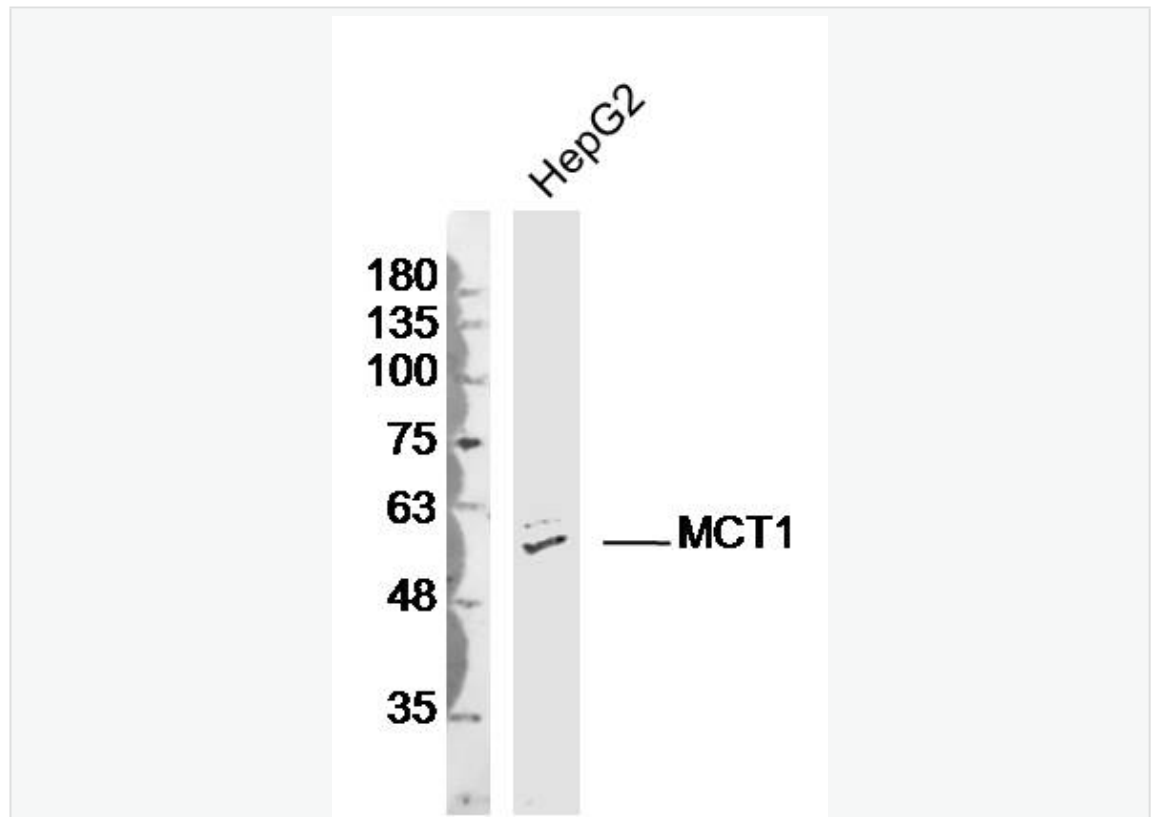
[SwissProt: P53985](#) Human

[SwissProt: P53986](#) Mouse

[Unigene: 75231](#) Human

[Unigene: 9086](#) Mouse

**Product
Picture**



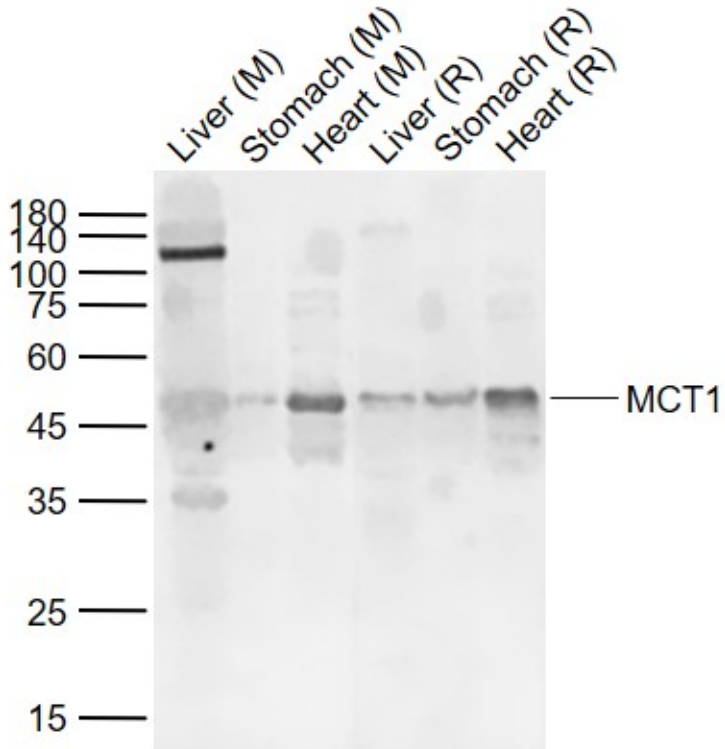
Sample:HepG2 (Human)cell Lysate at 40 ug

Primary: Anti-MCT1(SL10249R)at 1/300 dilution

Secondary: IRDye800CW Goat Anti-RabbitIgG at 1/20000 dilution

Predicted band size: 55kD

Observed band size: 55kD



Sample:

Lane 1: Liver (Mouse) Lysate at 40 ug

Lane 2: Stomach (Mouse) Lysate at 40 ug

Lane 3: Heart (Mouse) Lysate at 40 ug

Lane 4: Liver (Rat) Lysate at 40 ug

Lane 5: Stomach (Rat) Lysate at 40 ug

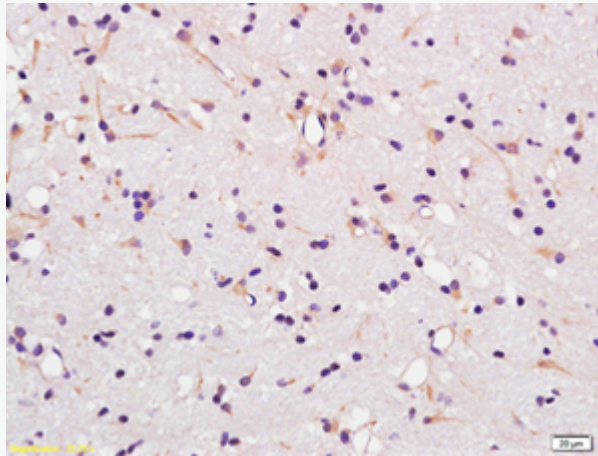
Lane 6: Heart (Rat) Lysate at 40 ug

Primary: Anti-MCT1 (SL10249R) at 1/1000 dilution

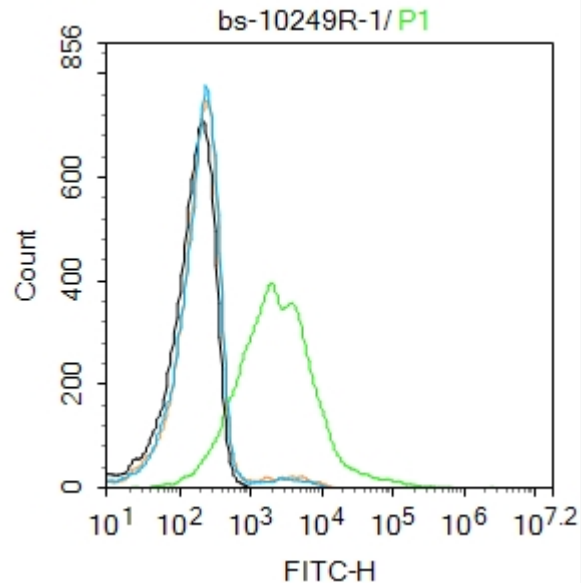
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 48 kD

Observed band size: 48 kD



Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (MCT1) Polyclonal Antibody, Unconjugated (SL10249R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Blank control:K562.

Primary Antibody (green line): Rabbit Anti-MCT1 antibody (SL10249R)

Dilution: 1 μ g /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

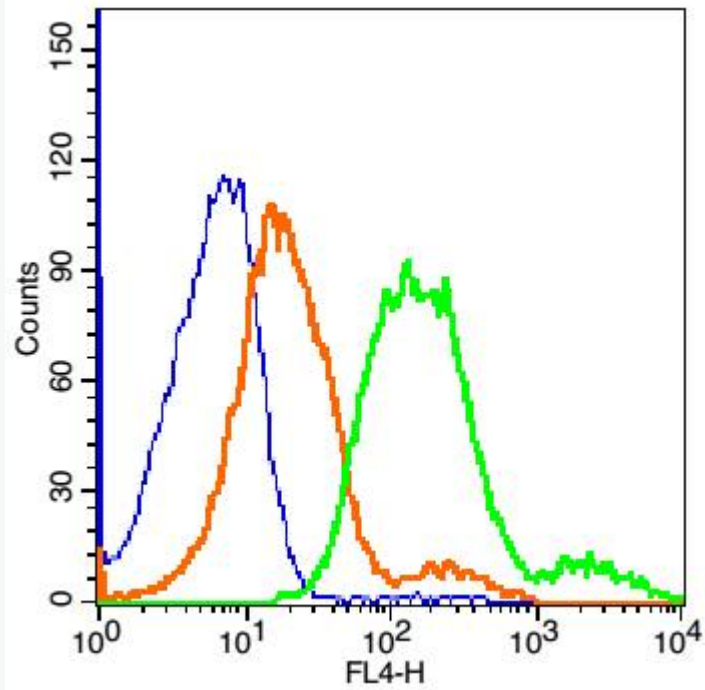
Secondary Antibody : Goat anti-rabbit IgG-FITC

Dilution: 0.5 μ g /test.

Protocol

The cells were 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.



Blank control: MCF7 Cells(blue).

Primary Antibody: Rabbit Anti-MCT1/AF647 Conjugated antibody

(SL10249R-AF647), Dilution: 1 μ g in 100 μ L 1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG/FITC(orange) ,used under the same conditions.