

# Monocarboxylic Acid Transporter 1 Rabbit mAb

Catalog # AP75735

## Product Information

---

Application	WB
Primary Accession	<a href="#">P53985</a>
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	53944

## Additional Information

---

Gene ID	6566
Other Names	SLC16A1
Dilution	WB~~1/500-1/1000
Format	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

## Protein Information

---

Name	SLC16A1 ( <a href="#">HGNC:10922</a> )
Synonyms	MCT1
Function	<p>Bidirectional proton-coupled monocarboxylate transporter (PubMed:<a href="#">12946269</a>, PubMed:<a href="#">32946811</a>, PubMed:<a href="#">33333023</a>). Catalyzes the rapid transport across the plasma membrane of many monocarboxylates such as lactate, pyruvate, acetate and the ketone bodies acetoacetate and beta-hydroxybutyrate, and thus contributes to the maintenance of intracellular pH (PubMed:<a href="#">12946269</a>, PubMed:<a href="#">33333023</a>). The transport direction is determined by the proton motive force and the concentration gradient of the substrate monocarboxylate. MCT1 is a major lactate exporter (By similarity). Plays a role in cellular responses to a high-fat diet by modulating the cellular levels of lactate and pyruvate that contribute to the regulation of central metabolic pathways and insulin secretion, with concomitant effects on plasma insulin levels and blood glucose homeostasis (By similarity). Facilitates the protonated monocarboxylate form of succinate export, that its transient protonation upon muscle cell acidification in exercising muscle and ischemic heart (PubMed:<a href="#">32946811</a>). Functions via alternate outward- and inward-open conformation states. Protonation and</p>

deprotonation of 309-Asp is essential for the conformational transition (PubMed:[33333023](#)).

### Cellular Location

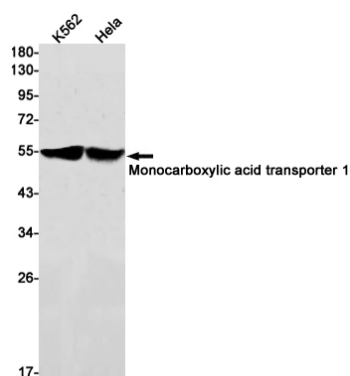
Cell membrane; Multi-pass membrane protein. Basolateral cell membrane {ECO:0000250|UniProtKB:P53987}; Multi-pass membrane protein. Apical cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P53987}. Note=Expression at the cell surface requires the ancillary proteins BSG and EMB. Binds preferentially to BSG.

### Tissue Location

Widely expressed (PubMed:12115955, PubMed:15505343, PubMed:15901598). Detected in heart and in blood lymphocytes and monocytes (at protein level) (PubMed:15505343)

## Images

---



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.