

# MCT13 (C-12): sc-109322

## BACKGROUND

Monocarboxylates, such as lactate and pyruvate, play an integral role in cellular metabolism. Lactic acid is produced in large quantities as a result of glycolysis, which provides the majority of ATP to cells under normal physiological conditions. However, accumulation of lactic acid leads to a decrease in intracellular pH and, thus, to a cessation of glycolysis. In order for glycolysis to continue at a high rate, lactic acid must be transported out of the cell. This transport process is carried out by a family of monocarboxylate transporters (MCTs), which function as proton symports and are stereoselective for L-lactate. MCT13 (monocarboxylate transporter 13), also known as SLC16A13 (solute carrier family 16 member 13), is a 426 amino acid multi-pass membrane protein that belongs to the MCT transport family. Functioning as a proton-linked monocarboxylate transporter, MCT13 catalyzes the rapid transports of molecules, such as lactate, across the plasma membrane.

## REFERENCES

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- Meredith, D. and Christian, H.C. 2008. The SLC16 monocarboxylate transporter family. *Xenobiotica* 38: 1072-1106.

## CHROMOSOMAL LOCATION

Genetic locus: SLC16A13 (human) mapping to 17p13.1.

## SOURCE

MCT13 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal extracellular domain of MCT13 of human origin.

## STORAGE

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

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109322 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MCT13 (C-12) is recommended for detection of MCT13 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MCT13 siRNA (h): sc-93687, MCT13 shRNA Plasmid (h): sc-93687-SH and MCT13 shRNA (h) Lentiviral Particles: sc-93687-V.

Molecular Weight of MCT13: 45 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

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


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Try **MCT13 (D-12): sc-377128**, our highly recommended monoclonal alternative to MCT13 (C-12).