Resource Summary Report

Generated by RRID on Aug 6, 2026

MPC1 (D2L9I)

RRID:AB_2773729
Type: Antibody

Proper Citation

Cell Signaling Technology Cat# 14462, RRID:AB_2773729

Antibody Information

URL: http://antibodyregistry.org/AB_2773729

Proper Citation: Cell Signaling Technology Cat# 14462, RRID:AB_2773729

Target Antigen: mitochondrial pyruvate carrier 1 (MPC1)

Host Organism: rabbit

Clonality: monoclonal

Comments: Applications: W, IP

Antibody Name: MPC1 (D2L9I)

Description: This monoclonal targets mitochondrial pyruvate carrier 1 (MPC1)

Target Organism: Human, Rat, Monkey, Mouse

Clone ID: D2L9I

Antibody ID: AB_2773729

Vendor: Cell Signaling Technology

Catalog Number: 14462

Alternative Catalog Numbers: 14462S

Record Creation Time: 20250820T041559+0000

Record Last Update: 20250820T182954+0000

Ratings and Alerts

No rating or validation information has been found for MPC1 (D2L9I).

No alerts have been found for MPC1 (D2L9I).

Data and Source Information

Source: Antibody Registry

Usage and Citation Metrics

We found 16 mentions in open access literature.

Listed below are recent publications. The full list is available at RRID .

Hsu CC, et al. (2025) ALDH4A1 functions as an active component of the MPC complex maintaining mitochondrial pyruvate import for TCA cycle entry and tumour suppression. Nature cell biology, 27(5), 847.

Nuyttens L, et al. (2025) Unraveling mitochondrial pyruvate dysfunction to mitigate hyperlactatemia and lethality in sepsis. Cell reports, 44(8), 116032.

Farook MR, et al. (2024) Loss of mitochondrial pyruvate carrier 1 supports proline-dependent proliferation and collagen biosynthesis in ovarian cancer. Molecular metabolism, 81, 101900.

Tamura Y, et al. (2024) Monocarboxylate transporter 4 deficiency enhances high-intensity interval training-induced metabolic adaptations in skeletal muscle. The Journal of physiology, 602(7), 1313.

Nishi K, et al. (2023) Branched-chain keto acids inhibit mitochondrial pyruvate carrier and suppress gluconeogenesis in hepatocytes. Cell reports, 42(6), 112641.

Yiew NKH, et al. (2023) Effects of hepatic mitochondrial pyruvate carrier deficiency on de novo lipogenesis and gluconeogenesis in mice. iScience, 26(11), 108196.

Cai X, et al. (2023) Lactate activates the mitochondrial electron transport chain independently of its metabolism. Molecular cell, 83(21), 3904.

Bayazit MB, et al. (2022) Small RNAs derived from tRNA fragmentation regulate the functional maturation of neonatal ? cells. Cell reports, 40(2), 111069.

Wei P, et al. (2022) Mitochondrial pyruvate supports lymphoma proliferation by fueling a glutamate pyruvate transaminase 2-dependent glutaminolysis pathway. Science advances, 8(39), eabq0117.

Galber C, et al. (2021) The f subunit of human ATP synthase is essential for normal mitochondrial morphology and permeability transition. Cell reports, 35(6), 109111.

Cluntun AA, et al. (2021) The pyruvate-lactate axis modulates cardiac hypertrophy and heart failure. Cell metabolism, 33(3), 629.

Ordureau A, et al. (2021) Temporal proteomics during neurogenesis reveals large-scale proteome and organelle remodeling via selective autophagy. Molecular cell, 81(24), 5082.

Bensard CL, et al. (2020) Regulation of Tumor Initiation by the Mitochondrial Pyruvate Carrier. Cell metabolism, 31(2), 284.

Rossi A, et al. (2020) Defective Mitochondrial Pyruvate Flux Affects Cell Bioenergetics in Alzheimer's Disease-Related Models. Cell reports, 30(7), 2332.

Park S, et al. (2019) Inhibition of ERR? Prevents Mitochondrial Pyruvate Uptake Exposing NADPH-Generating Pathways as Targetable Vulnerabilities in Breast Cancer. Cell reports, 27(12), 3587.

Tompkins SC, et al. (2019) Disrupting Mitochondrial Pyruvate Uptake Directs Glutamine into the TCA Cycle away from Glutathione Synthesis and Impairs Hepatocellular Tumorigenesis. Cell reports, 28(10), 2608.