

Resource Summary Report

Generated by [RRID](#) on Sep 4, 2026

ATDC-5

RRID:CVCL_3894

Type: Cell Line

Proper Citation

CLS Cat# 305427, RRID:CVCL_3894

Cell Line Information

URL: https://web.expasy.org/cellosaurus/CVCL_3894

Proper Citation: CLS Cat# 305427, RRID:CVCL_3894

Description: Cell line ATDC-5 is a Cancer cell line with a species of origin Mus musculus (Mouse)

Sex: Male

Disease: Mouse teratocarcinoma

Defining Citation: [PMID:2201423](#), [PMID:23192741](#)

Category: Cancer cell line

Organism: Mus musculus (Mouse)

Name: ATDC-5

Synonyms: ATDC5

Cross References: BTO:BTO_0001929, CLO:CLO_0050536, CLS:305427, ECACC:99072806, Lonza:227, RCB:RCB0565, Wikidata:Q54751118

ID: CVCL_3894

Vendor: CLS

Catalog Number: 305427

Hierarchy: cvcl_8068

Record Creation Time: 20250423T094244+0000

Record Last Update: 20260904T021714+0000

Ratings and Alerts

No rating or validation information has been found for ATDC-5.

No alerts have been found for ATDC-5.

Data and Source Information

Source: [CelloSaurus](#)

Usage and Citation Metrics

We found 20 mentions in open access literature.

Listed below are recent publications. The full list is available at [RRID](#) .

Zhong Y, et al. (2026) Repurposing metformin for treating osteoarthritis via leveraging Nrf2 signaling. Scientific reports, 16(1), 4966.

Zhang XF, et al. (2026) BMI1 activated by ZBTB17 stabilizes SMAD2 to promote chondrocyte anabolism and alleviate osteoarthritis. Journal of advanced research.

Zhang F, et al. (2025) The ESCRT protein CHMP5 restricts bone formation by controlling endolysosome-mitochondrion-mediated cell senescence. eLife, 13.

Nakagawa M, et al. (2025) Protein Phosphatase 1 Regulatory Subunit 3C integrates cholesterol metabolism and isocitrate dehydrogenase in chondrocytes and neoplasia. Proceedings of the National Academy of Sciences of the United States of America, 122(16), e2501519122.

Zhang M, et al. (2025) Downregulation of HSP47 triggers ER stress-mediated apoptosis of hypertrophic chondrocytes contributing to T-2 toxin-induced cartilage damage. Environmental pollution (Barking, Essex : 1987), 368, 125640.

Pazos-Pérez A, et al. (2024) The Hepatokine RBP4 Links Metabolic Diseases to Articular Inflammation. Antioxidants (Basel, Switzerland), 13(1).

Chen W, et al. (2024) Cbf β regulates Wnt/ β -catenin, Hippo/Yap, and TGF β signaling pathways in articular cartilage homeostasis and protects from ACLT surgery-induced osteoarthritis. bioRxiv : the preprint server for biology.

Kan T, et al. (2024) Matrix stiffness aggravates osteoarthritis progression through H3K27me3 demethylation induced by mitochondrial damage. iScience, 27(8), 110507.

Wang H, et al. (2024) Protocol for microindentation analysis of human cartilage and methacrylated gelatin hydrogels with varying stiffness in ATDC5 cell cultures. STAR protocols, 6(1), 103511.

Kawaue H, et al. (2024) KIF22 regulates mitosis and proliferation of chondrocyte cells. iScience, 27(7), 110151.

Sheng R, et al. (2024) METTL3 regulates cartilage development and homeostasis by affecting Lats1 mRNA stability in an m6A-YTHDF2-dependent manner. *Cell reports*, 43(8), 114535.

Kim D, et al. (2024) Gulp1 regulates chondrocyte growth arrest and differentiation via the TGF- β /SMAD2/3 pathway. *FEBS letters*, 598(8), 935.

Chen W, et al. (2024) Cbfa1 regulates Wnt/ β -catenin, Hippo/Yap, and Tgf β signaling pathways in articular cartilage homeostasis and protects from ACLT surgery-induced osteoarthritis. *eLife*, 13.

Kong K, et al. (2023) Mechanical overloading leads to chondrocyte degeneration and senescence via Zmpste24-mediated nuclear membrane instability. *iScience*, 26(11), 108119.

Zhang F, et al. (2023) NFATc1 marks articular cartilage progenitors and negatively determines articular chondrocyte differentiation. *eLife*, 12.

Franco-Trepat E, et al. (2022) Amitriptyline blocks innate immune responses mediated by toll-like receptor 4 and IL-1 receptor: Preclinical and clinical evidence in osteoarthritis and gout. *British journal of pharmacology*, 179(2), 270.

Takano M, et al. (2021) ANGPTL2 Promotes Inflammation via Integrin $\alpha 5 \beta 1$ in Chondrocytes. *Cartilage*, 13(2_suppl), 885S.

Chen P, et al. (2020) YAP1 regulates chondrogenic differentiation of ATDC5 promoted by temporary TNF- α stimulation through AMPK signaling pathway. *Molecular and cellular biochemistry*, 474(1-2), 209.

Ishida M, et al. (2018) Serpina3n, Dominantly Expressed in Female Osteoblasts, Suppresses the Phenotypes of Differentiated Osteoblasts in Mice. *Endocrinology*, 159(11), 3775.

Diaz-Romero J, et al. (2017) S100B + A1 CELISA: A Novel Potency Assay and Screening Tool for Redifferentiation Stimuli of Human Articular Chondrocytes. *Journal of cellular physiology*, 232(6), 1559.