

# Resource Summary Report

Generated by [FDI Lab - SciCrunch.org](https://fdi-lab.sci-crunch.org) on Apr 23, 2025

## 3T3-L1

RRID:CVCL\_0123

Type: Cell Line

---

### Proper Citation

(BCRC Cat# 60159, RRID:CVCL\_0123)

---

### Cell Line Information

**URL:** [https://web.expasy.org/cellosaurus/CVCL\\_0123](https://web.expasy.org/cellosaurus/CVCL_0123)

**Proper Citation:** (BCRC Cat# 60159, RRID:CVCL\_0123)

**Sex:** Male

**Defining Citation:** [PMID:165899](#), [PMID:4426090](#), [PMID:6698114](#), [PMID:28176856](#)

**Comments:** Miscellaneous: STR profile from personal communication of Rodriguez-Tarduchy Segovia, Gemma.

**Category:** Spontaneously immortalized cell line

**Name:** 3T3-L1

**Synonyms:** 3T3 L1, 3T3L1, 3T3-L1 ad, NIH-3T3-L1, NIH3T3-L1

**Cross References:** BTO:BTO\_0000011, CLO:CLO\_0001352, EFO:EFO\_0001084, EFO:EFO\_0001223, MCCL:MCC:0000015, CLDB:cl71, CLDB:cl72, CLDB:cl73, AddexBio:P0011002/407, ATCC:CL-173, ATCC:CCL-92.1, BCRC:60159, BCRJ:0019, CCRID:1101MOU-PUMC000155, CCRID:3101MOUGNM25, CCRID:3101MOUSCSP5038, CCRID:4201MOU-CCTCC00180, CCRID:5301MOU-KCB92010YJ, CCTCC:GDC0180, ChEMBL-Cells:ChEMBL3307630, ChEMBL-Targets:ChEMBL614510, CLS:400107, ECACC:86052701, ENCODE:ENCBS366WMO, ENCODE:ENCBS666CGP, IBRC:C10152, IZSLER:BS CL 100, JCRB:IFO50416, JCRB:JCRB9014, KCB:KCB 92010YJ, KCLB:10092.1, Kerafast:EF3001, Lonza:677, Lonza:1083, MeSH:D041721, PRIDE:PXD001063, PRIDE:PXD001529, PRIDE:PXD003696, PubChem\_Cell\_line:CVCL\_0123, TOKU-E:331, Wikidata:Q4636414

**ID:** CVCL\_0123

**Vendor:** BCRC

**Catalog Number:** 60159

**Record Creation Time:** 20250131T193502+0000

**Record Last Update:** 20250131T193527+0000

---

## Ratings and Alerts

No rating or validation information has been found for 3T3-L1.

No alerts have been found for 3T3-L1.

---

## Data and Source Information

**Source:** [Cellosaurus](#)

---

## Usage and Citation Metrics

We found 3344 mentions in open access literature.

**Listed below are recent publications.** The full list is available at [FDI Lab - SciCrunch.org](#).

Kaczmarek I, et al. (2024) Qualitative and quantitative analysis of lipid droplets in mature 3T3-L1 adipocytes using oil red O. STAR protocols, 5(2), 102977.

Patra D, et al. (2024) Adipose tissue macrophage-derived microRNA-210-3p disrupts systemic insulin sensitivity by silencing GLUT4 in obesity. The Journal of biological chemistry, 300(6), 107328.

Strnadová M, et al. (2024) Protocol for changing gene expression in 3T3-L1 (pre)adipocytes using siRNA-mediated knockdown. STAR protocols, 5(2), 103075.

Lino M, et al. (2024) Multi-step regulation of microRNA expression and secretion into small extracellular vesicles by insulin. Cell reports, 43(7), 114491.

Tsaousidou E, et al. (2024) Endogenous p53 inhibitor TIRR dissociates systemic metabolic health from oncogenic activity. Cell reports, 43(6), 114337.

Edwin RK, et al. (2024) TGS1/PIMT knockdown reduces lipid accumulation in adipocytes, limits body weight gain and promotes insulin sensitivity in mice. Biochimica et biophysica acta. Molecular basis of disease, 1870(1), 166896.

Rybinska I, et al. (2024) SAA1-dependent reprogramming of adipocytes by tumor cells is associated with triple negative breast cancer aggressiveness. *International journal of cancer*.

Yu L, et al. (2024) IgG is an aging factor that drives adipose tissue fibrosis and metabolic decline. *Cell metabolism*, 36(4), 793.

Aldehoff AS, et al. (2024) Unveiling the dynamics of acetylation and phosphorylation in SGBS and 3T3-L1 adipogenesis. *iScience*, 27(6), 109711.

Wu HF, et al. (2024) Parasympathetic neurons derived from human pluripotent stem cells model human diseases and development. *Cell stem cell*, 31(5), 734.

Yu W, et al. (2024) The myokine CCL5 recruits subcutaneous preadipocytes and promotes intramuscular fat deposition in obese mice. *American journal of physiology. Cell physiology*, 326(5), C1320.

Yu L, et al. (2024) FcRn-dependent IgG accumulation in adipose tissue unmask obesity pathophysiology. *Cell metabolism*.

Roth L, et al. (2024) Thyroid hormones are required for thermogenesis of beige adipocytes induced by Zfp423 inactivation. *Cell reports*, 43(12), 114987.

Chen PC, et al. (2024) Intestinal dual-specificity phosphatase 6 regulates the cold-induced gut microbiota remodeling to promote white adipose browning. *NPJ biofilms and microbiomes*, 10(1), 22.

Chocarro-Calvo A, et al. (2024) Phenotype-specific melanoma uptake of fatty acid from human adipocytes activates AXL and CAV1-dependent  $\beta$ -catenin nuclear accumulation. *bioRxiv : the preprint server for biology*.

Wang Q, et al. (2024) MIIP downregulation drives colorectal cancer progression through inducing peri-cancerous adipose tissue browning. *Cell & bioscience*, 14(1), 12.

Wan S, et al. (2023) Ginsenoside Rd promotes omentin secretion in adipose through TBK1-AMPK to improve mitochondrial biogenesis via WNT5A/Ca<sup>2+</sup> pathways in heart failure. *Redox biology*, 60, 102610.

Villanueva-Carmona T, et al. (2023) SUCNR1 signaling in adipocytes controls energy metabolism by modulating circadian clock and leptin expression. *Cell metabolism*, 35(4), 601.

Roth L, et al. (2023) Thyroid hormones regulate Zfp423 expression in regionally distinct adipose depots through direct and cell-autonomous action. *Cell reports*, 42(2), 112088.

Zhang K, et al. (2023) Primary cilia are WNT-transducing organelles whose biogenesis is controlled by a WNT-PP1 axis. *Developmental cell*, 58(2), 139.