Resource Summary Report

Generated by FDI Lab - SciCrunch.org on Mar 29, 2025

C2C12

RRID:CVCL_0188
Type: Cell Line

Proper Citation

(ECACC Cat# 91031101, RRID:CVCL_0188)

Cell Line Information

URL: https://web.expasy.org/cellosaurus/CVCL_0188

Proper Citation: (ECACC Cat# 91031101, RRID:CVCL_0188)

Sex: Female

Defining Citation: PMID:563524, PMID:8023908, PMID:15596414, PMID:19298647, PMID:19350625, PMID:20635352, PMID:22020321, PMID:24735950, PMID:25277546, PMID:25894527

Comments: Omics: Transcriptome analysis by microarray., Omics: SNP array analysis., Omics: Metabolome analysis., Omics: H3K79me3 ChIP-seq epigenome analysis., Omics: H3K79me2 ChIP-seq epigenome analysis., Omics: H3K4me3 ChIP-seq epigenome analysis., Omics: H3K36me3 ChIP-seq epigenome analysis., Omics: H3K27me3 ChIP-seq epigenome analysis., Omics: Deep proteome analysis., Omics: Cell surface proteome., Characteristics: Capable, upon starvation, of differentiating into contractile myotubes that express muscle-specific proteins., Part of: ENCODE project mouse cell lines.

Category: Spontaneously immortalized cell line

Name: C2C12

Synonyms: C2c12, C2-C12, C12

Cross References: BTO:BTO_0000165, CLO:CLO_0002071, CLO:CLO_0050871, EFO:EFO_0001098, MCCL:MCC:0000079, CLDB:cl563, CLDB:cl564, CLDB:cl5172, Abcam:ab279976, AddexBio:P0028001/4665, ATCC:CRL-1772, BCRC:60083, BCRJ:0058, BioGRID_ORCS_Cell_line:1564, CCRID:1101MOU-PUMC000099, CCRID:3101MOUGNM26, CCRID:3101MOUSCSP505, CCRID:4201MOU-CCTCC00175, CCTCC:GDC0175, ChEMBL-Cells:CHEMBL3308003, ChEMBL-Targets:CHEMBL612655,

CLS:400476, DSMZ:ACC-565, DSMZCellDive:ACC-565, ECACC:91031101, ENCODE:ENCBS124ENC, ENCODE:ENCBS299ZOZ, ENCODE:ENCBS981MXJ, FCS-free:221-5-486-3-3, FCS-free:221-5-527-1-3-3, FCS-free:221-17-457-3-4-3, FCS-free:221-17-505-3-4-12, FCS-free:221-21-488-3-4-12, GEO:GSE30192, GEO:GSM915162, GEO:GSM915166, GEO:GSM915174, GEO:GSM915179, GEO:GSM915182, GEO:GSM915186, GEO:GSM915188, GEO:GSM918408, GEO:GSM918410, GEO:GSM918411, GEO:GSM918415, GEO:GSM918417, GEO:GSM918422, GEO:GSM1354755, IZSLER:BS CL 148, KCB:KCB 2012115YJ, Lonza:692, MetaboLights:MTBLS127, NCBI_Iran:C521, PRIDE:PXD000022, PRIDE:PXD000288, PRIDE:PXD000328, PRIDE:PXD000589, PRIDE:PXD003211, PRIDE:PXD004151, PRIDE:PXD004960, PRIDE:PXD012986, PRIDE:PXD017465, PubChem_Cell_line:CVCL_0188, RCB:RCB0987, TOKU-E:728, Ubigene:YC-A010, Wikidata:Q5008075

ID: CVCL_0188

Vendor: ECACC

Catalog Number: 91031101

Record Creation Time: 20250131T194630+0000

Record Last Update: 20250131T195133+0000

Ratings and Alerts

No rating or validation information has been found for C2C12.

No alerts have been found for C2C12.

Data and Source Information

Source: Cellosaurus

Usage and Citation Metrics

We found 5622 mentions in open access literature.

Listed below are recent publications. The full list is available at FDI Lab - SciCrunch.org.

Yan YS, et al. (2024) Intrauterine hyperglycaemia during late gestation caused mitochondrial dysfunction in skeletal muscle of male offspring through CREB/PGC1A signaling. Nutrition & diabetes, 14(1), 56.

Kato Y, et al. (2024) Inhibition of dynamin-related protein 1-filamin interaction improves systemic glucose metabolism. British journal of pharmacology, 181(21), 4328.

Triolo M, et al. (2024) Optic atrophy 1 mediates muscle differentiation by promoting a metabolic switch via the supercomplex assembly factor SCAF1. iScience, 27(3), 109164.

Liu M, et al. (2024) The crosstalk between macrophages and cancer cells potentiates pancreatic cancer cachexia. Cancer cell, 42(5), 885.

Verma M, et al. (2024) Endothelial cell signature in muscle stem cells validated by VEGFA-FLT1-AKT1 axis promoting survival of muscle stem cell. eLife, 13.

Khatami N, et al. (2024) Valorization of biological waste from insect-based food industry: Assessment of chitin and chitosan potential. Carbohydrate polymers, 324, 121529.

Schmidt L, et al. (2024) Spatial proteomics of skeletal muscle using thin cryosections reveals metabolic adaptation at the muscle-tendon transition zone. Cell reports, 43(7), 114374.

Li P, et al. (2024) Microbiota-derived 3-phenylpropionic acid promotes myotube hypertrophy by Foxo3/NAD+ signaling pathway. Cell & bioscience, 14(1), 62.

Shen Y, et al. (2024) ABHD7-mediated depalmitoylation of lamin A promotes myoblast differentiation. Cell reports, 43(2), 113720.

Hain BA, et al. (2024) Preventing loss of sirt1 lowers mitochondrial oxidative stress and preserves C2C12 myotube diameter in an in vitro model of cancer cachexia. Physiological reports, 12(13), e16103.

Lewis JW, et al. (2024) Therapeutic avenues in bone repair: Harnessing an anabolic osteopeptide, PEPITEM, to boost bone growth and prevent bone loss. Cell reports. Medicine, 5(5), 101574.

Martins SG, et al. (2024) Laminin-?2 chain deficiency in skeletal muscle causes dysregulation of multiple cellular mechanisms. Life science alliance, 7(12).

Luck C, et al. (2024) The Capicua C1 Domain Is Required for Full Activity of the CIC::DUX4 Fusion Oncoprotein. Cancer research communications, 4(12), 3099.

Lin K, et al. (2024) Disrupted methionine cycle triggers muscle atrophy in cancer cachexia through epigenetic regulation of REDD1. Cell metabolism.

Lukas F, et al. (2024) Canonical and non-canonical integrin-based adhesions dynamically interconvert. Nature communications, 15(1), 2093.

Ma J, et al. (2024) CHCHD4-TRIAP1 regulation of innate immune signaling mediates skeletal muscle adaptation to exercise. Cell reports, 43(1), 113626.

Hernandez-Benitez R, et al. (2024) Intervention with metabolites emulating endogenous cell

transitions accelerates muscle regeneration in young and aged mice. Cell reports. Medicine, 5(3), 101449.

Goto N, et al. (2024) ISWI chromatin remodeling complexes recruit NSD2 and H3K36me2 in pericentromeric heterochromatin. The Journal of cell biology, 223(8).

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.

Pang JD, et al. (2024) Trichinella spiralis inhibits myoblast differentiation by targeting SQSTM1/p62 with a secreted E3 ubiquitin ligase. iScience, 27(3), 109102.