

Resource Summary Report

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HEI-OC1

RRID:CVCL_D899

Type: Cell Line

Proper Citation

CLS Cat# 305548, RRID:CVCL_D899

Cell Line Information

URL: https://web.expasy.org/cellosaurus/CVCL_D899

Proper Citation: CLS Cat# 305548, RRID:CVCL_D899

Description: Cell line HEI-OC1 is a Conditionally immortalized cell line with a species of origin *Mus musculus* (Mouse)

Sex: Sex unspecified

Defining Citation: [PMID:12811000](#), [PMID:26854618](#), [PMID:26930622](#), [PMID:27684094](#)

Comments: Characteristics: Growth at the permissive (33 Celsius) temperature results in dedifferentiation of the cells and accelerated proliferation. At the restrictive temperature (39 Celsius) cell proliferation halts in about 48h.

Category: Conditionally immortalized cell line

Organism: *Mus musculus* (Mouse)

Name: HEI-OC1

Synonyms: HEIOC1, House Ear Institute-Organ of Corti 1

Cross References: BTO:BTO_0004862, CLS:305548, Ubigene:YC-A025, Wikidata:Q27653205

ID: CVCL_D899

Vendor: CLS

Catalog Number: 305548

Record Creation Time: 20260408T073446+0000

Record Last Update: 20260905T185249+0000

Ratings and Alerts

No rating or validation information has been found for HEI-OC1.

No alerts have been found for HEI-OC1.

Data and Source Information

Source: [CelloSaurus](#)

Usage and Citation Metrics

We found 208 mentions in open access literature.

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

Yuan C, et al. (2026) NRH attenuates age-related hearing loss by suppressing cochlear ferroptosis and cellular senescence via Sirt3 activation. *Free radical biology & medicine*, 248, 450.

Zhang N, et al. (2026) GATA4-Driven Transcription of HtrA1 Promotes Cellular Senescence in Ménière's Disease and Age-Related Audio-Vestibular Dysfunction. *Advanced science* (Weinheim, Baden-Wurttemberg, Germany), 13(39), e12538.

Xu C, et al. (2026) A Novel LMX1A Frameshift Variant Underlies Familial Phenotypic Heterogeneity in DFNA7. *Human mutation*, 2026, 9930672.

Hou J, et al. (2025) Formyl peptide receptor 2 (FPR2) mediates cisplatin-induced cochlear inflammation and hair cell apoptosis. *Toxicology*, 517, 154229.

Wang Q, et al. (2025) Cisplatin-Induced APE2 Overexpression Disrupts MYH9 Function and Causes Hearing Loss. *Cancer research communications*, 5(6), 994.

Lanz M, et al. (2025) mTORC2 Regulates Actin Polymerization in Auditory Cells. *Journal of neurochemistry*, 169(2), e70012.

Wang L, et al. (2024) Amitriptyline protects afferent synapses in the cochlea against excitotoxic trauma in vitro. *The FEBS journal*, 291(18), 4111.

Zhang X, et al. (2023) UHRF1-induced connexin26 methylation is involved in hearing damage triggered by intermittent hypoxia in neonatal rats. *Open medicine* (Warsaw, Poland), 18(1), 20230650.

Zhang Q, et al. (2023) TIGAR Protects Cochlear Hair Cells against Teicoplanin-Induced Damage. *Molecular neurobiology*, 60(7), 3788.

Umugire A, et al. (2023) Protective Effect of Avenanthramide-C on Auditory Hair Cells against Oxidative Stress, Inflammatory Cytokines, and DNA Damage in Cisplatin-Induced Ototoxicity. *International journal of molecular sciences*, 24(3).

Cui K, et al. (2023) Chenodeoxycholic Acid-Amikacin Combination Enhances Eradication of *Staphylococcus aureus*. *Microbiology spectrum*, 11(1), e0243022.

Li L, et al. (2023) UCHL1 regulated by Sp1 ameliorates cochlear hair cell senescence and oxidative damage. *Experimental and therapeutic medicine*, 25(2), 94.

Zhang D, et al. (2023) Deciphering the potential ability of RG108 in cisplatin-induced HEI-OC1 ototoxicity: a research based on RNA-seq and molecular biology experiment. *Hereditas*, 160(1), 18.

Hong BN, et al. (2023) Amelioration of Sensorineural Hearing Loss through Regulation of Trpv1, Cacna1h, and Ngf Gene Expression by a Combination of *Cuscutae Semen* and *Rehmanniae Radix Preparata*. *Nutrients*, 15(7).

Wang H, et al. (2023) miR-34a/DRP-1-mediated mitophagy participated in cisplatin-induced ototoxicity via increasing oxidative stress. *BMC pharmacology & toxicology*, 24(1), 16.

García-Mato Á, et al. (2023) IGF-1 Controls Metabolic Homeostasis and Survival in HEI-OC1 Auditory Cells through AKT and mTOR Signaling. *Antioxidants (Basel, Switzerland)*, 12(2).

Ma P, et al. (2023) MiR-29a-deficiency causes thickening of the basilar membrane and age-related hearing loss by upregulating collagen IV and laminin. *Frontiers in cellular neuroscience*, 17, 1191740.

Huang X, et al. (2023) Apoptotic vesicles resist oxidative damage in noise-induced hearing loss through activation of FOXO3a-SOD2 pathway. *Stem cell research & therapy*, 14(1), 88.

Krishnan Muthaiah VP, et al. (2023) Poly ADP-Ribose Polymerase-1 inhibition by 3-aminobenzamide recuperates HEI-OC1 auditory hair cells from blast overpressure-induced cell death. *Frontiers in cell and developmental biology*, 11, 1047308.

Berger E, et al. (2023) In vitro impact of platinum nanoparticles on inner ear related cell culture models. *PloS one*, 18(4), e0284794.