

Resource Summary Report

Generated by [dkNET](#) on Sep 1, 2026

IPS(IMR90)-4

RRID:CVCL_C437

Type: Cell Line

Proper Citation

WiCell Cat# ips-imr90-4, RRID:CVCL_C437

Cell Line Information

URL: https://web.expasy.org/cellosaurus/CVCL_C437

Proper Citation: WiCell Cat# ips-imr90-4, RRID:CVCL_C437

Description: Cell line IPS(IMR90)-4 is a Induced pluripotent stem cell with a species of origin Homo sapiens (Human)

Sex: Female

Defining Citation: [PMID:18029452](#), [PMID:21654665](#), [PMID:22905176](#), [PMID:30044992](#), [PMID:32946783](#), [PMID:36261438](#)

Comments: Population: Caucasian., From: University of Wisconsin; Madison; USA.

Category: Induced pluripotent stem cell

Organism: Homo sapiens (Human)

Name: IPS(IMR90)-4

Synonyms: iPS(IMR90)-4, iPS(IMR90) clone (#4), iPS(IMR90)-4-DL-01, iPS-IMR90-4, IMR90-4, IMR4, WISCI004-B

Cross References: BioSamples:SAMEA5840405, GEO:GSM658950, GEO:GSM861007, GEO:GSM1084842, GEO:GSM1084934, GEO:GSM3192176, GEO:GSM3192177, hPSCreg:WISCI004-B, SKIP:SKIP002368, SKIP:SKIP004449, WiCell:ips-imr90-4, Wikidata:Q54898191

ID: CVCL_C437

Vendor: WiCell

Catalog Number: ips-imr90-4

Hierarchy: cvcl_0347

Record Creation Time: 20220427T220639+0000

Record Last Update: 20260829T234326+0000

Ratings and Alerts

No rating or validation information has been found for IPS(IMR90)-4.

No alerts have been found for IPS(IMR90)-4.

Data and Source Information

Source: [CelloSaurus](#)

Usage and Citation Metrics

We found 32 mentions in open access literature.

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

Øhlenschläger MS, et al. (2026) Modeling Synaptic Maturation From Growth Cone to Synapse in Human Organoids. Journal of neurochemistry, 170(5), e70458.

Øhlenschläger MS, et al. (2026) Multi-omic analysis of guided and unguided forebrain organoids reveals differences in cellular composition and metabolic profiles. Cell reports methods, 6(2), 101295.

Zheng Z, et al. (2026) Targeting PGAM5-driven mitochondrial integrated stress response slows ALS progression across subtypes. Neuron, 114(12), 2109.

Capendale PE, et al. (2026) Microglia cause HIV-induced transcriptional and metabolic changes in human neural organoids. Communications biology, 9(1).

Hartmann C, et al. (2026) Brain capillary endothelial-like cells show altered barrier functionality and reduced transport of amyloid ? in late-onset Alzheimer disease. Fluids and barriers of the CNS, 23(1), 11.

Krieg K, et al. (2026) Protocol for validating drug efficacy and safety in scalable 96-well platforms of human cortical organoids and melanoma brain metastases. STAR protocols, 7(2), 104568.

Mauser HD, et al. (2025) In Vitro Comparison of Two Python-Based Programs for the Automated Analysis of Tight-Junction Phenotype in Brain Endothelium During Bacterial Infection. Cell biochemistry and function, 43(6), e70093.

Krieg K, et al. (2025) Cortical organoid-derived models of the melanoma brain metastatic niche enable prioritization of cancer-targeting drugs. Cell reports methods, 5(12), 101236.

Gomes CM, et al. (2025) Addressing neuroinflammation in human induced pluripotent stem cell-derived central nervous system neurospheroids. *iScience*, 28(9), 113246.

Mulder LA, et al. (2025) Effect of antivirals on clinical and lab-adapted human cytomegalovirus strains using induced pluripotent stem cell-derived human neural models. *Antiviral research*, 241, 106233.

Pervaiz I, et al. (2025) Glucose Transporter 1 Deficiency Impairs Glucose Metabolism and Barrier Induction in Human Induced Pluripotent Stem Cell-Derived Astrocytes. *Journal of cellular physiology*, 240(1), e31523.

Al-Dalahmah O, et al. (2024) Osteopontin drives neuroinflammation and cell loss in MAPT-N279K frontotemporal dementia patient neurons. *Cell stem cell*, 31(5), 676.

Weber CM, et al. (2024) Impacts of APOE- ϵ 4 and exercise training on brain microvascular endothelial cell barrier function and metabolism. *EBioMedicine*, 111, 105487.

Syangtan D, et al. (2024) Heparan sulfate regulates the fate decisions of human pluripotent stem cells. *Stem cell reports*, 102384.

Pervaiz I, et al. (2023) Ketone bodies supplementation restores the barrier function, induces a metabolic switch, and elicits beta-hydroxybutyrate diffusion across a monolayer of iPSC-derived brain microvascular endothelial cells. *Microvascular research*, 150, 104585.

Cheng Y, et al. (2022) Intrinsic antiviral immunity of barrier cells revealed by an iPSC-derived blood-brain barrier cellular model. *Cell reports*, 39(9), 110885.

Pervaiz I, et al. (2022) An in vitro model of glucose transporter 1 deficiency syndrome at the blood-brain barrier using induced pluripotent stem cells. *Journal of neurochemistry*, 162(6), 483.

Raut S, et al. (2022) Abeta peptides disrupt the barrier integrity and glucose metabolism of human induced pluripotent stem cell-derived brain microvascular endothelial cells. *Neurotoxicology*, 89, 110.

Nishihara H, et al. (2021) Differentiation of human pluripotent stem cells to brain microvascular endothelial cell-like cells suitable to study immune cell interactions. *STAR protocols*, 2(2), 100563.

Giandomenico SL, et al. (2021) Generation and long-term culture of advanced cerebral organoids for studying later stages of neural development. *Nature protocols*, 16(2), 579.