SH-SY5Y
RRID:CVCL_0019
Type: Cell Line

Proper Citation

(RRID:CVCL_0019)

Cell Line Information

URL: https://web.expasy.org/cellosaurus/CVCL_0019

Proper Citation: (RRID:CVCL_0019)

Description: Cell line SH-SY5Y is a Cancer cell line with a species of origin Homo sapiens (Human)

Sex: Female

Disease: Neuroblastoma


Comments: Omics: Transcriptome analysis by RNAseq., Omics: Transcriptome analysis by microarray., Omics: SNP array analysis., Omics: N-glycan profiling., Omics: Mitochondrial proteome analysis by 2D-DE/MS., Omics: GPI-anchored proteins analysis by proteomics., Omics: Deep tyrosine phosphoproteome analysis., Omics: Deep proteome analysis., Omics: Deep exome analysis., Omics: Deep antibody staining analysis., Virology: Low susceptibility to infection by Zika virus (ZIKV) (PubMed=29468137)., Characteristics: There seem to be differences in the retinoic acid (RA)-induced neuronal phenotype of SH-SY5Y cells from ATCC and ECACC. After 5 days of RA treatment, ECACC cells are slightly larger in size and contains significant amount of neuroblastic (N-type) cells and a small fraction of epithelial (S-type) cells (PubMed=18957096)., Characteristics: Neuroblastic type (N-type) (PubMed=15720811), Population: Caucasian., From: Memorial Sloan Kettering Cancer Center; New York; USA., Part of: ENCODE project common cell types; tier 3., Part of:
Cancer Dependency Map project (DepMap) (includes Cancer Cell Line Encyclopedia - CCLE). Problematic cell line: Partially contaminated. Some laboratories that are redistributing this cell line are in fact redistributing a contaminated cell line of mouse origin (PubMed=25182563).

**Category:** Cancer cell line

**Organism:** Homo sapiens (Human)

**Name:** SH-SY5Y

**Synonyms:** SH-Sy5y, SHSY5Y, SHSY-5Y, SK-SH-SY5Y, SY5Y, SH-SY5Y Parental

**Cross References:**
Ratings and Alerts

No rating or validation information has been found for SH-SY5Y.

Warning: Problematic cell line: Partially contaminated. Some laboratories that are redistributing this cell line are in fact redistributing a contaminated cell line of mouse origin (PubMed=25182563).

Registration: Memorial Sloan Kettering Cancer Center Office of Technology Development; SK 810.
Omics: Transcriptome analysis by RNAseq., Omics: Transcriptome analysis by microarray., Omics: SNP array analysis., Omics: N-glycan profiling., Omics: Mitochondrial proteome analysis by 2D-DE/MS., Omics: GPI-anchored proteins analysis by proteomics., Omics: Deep tyrosine phosphoproteome analysis., Omics: Deep proteome analysis., Omics: Deep exome analysis., Omics: Deep antibody staining analysis., Virology: Low susceptibility to infection by Zika virus (ZIKV) (PubMed=29468137)., Characteristics: There seem to be differences in the retinoic acid (RA)-induced neuronal phenotype of SH-SY5Y cells from ATCC and ECACC. After 5 days of RA treatment, ECACC cells are slightly larger in size and contains significant amount of neuroblastic (N-type) cells and a small fraction of epithelial (S-type) cells (PubMed=18957096)., Characteristics: Neuroblastic type (N-type) (PubMed=15720811)., Population: Caucasian., From: Memorial Sloan Kettering Cancer Center; New York; USA., Part of: ENCODE project common cell types; tier 3., Part of: Cancer Dependency Map project (DepMap) (includes Cancer Cell Line Encyclopedia - CCLE)., Problematic cell line: Partially contaminated. Some laboratories that are redistributing this cell line are in fact redistributing a contaminated cell line of mouse origin (PubMed=25182563).

Data and Source Information

Source: Cellosaurus

Usage and Citation Metrics

We found 241 mentions in open access literature.

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


Yang Y, et al. (2023) Targeting ARHGEF12 promotes neuroblastoma differentiation, MYCN degradation, and reduces tumorigenicity. Cellular oncology (Dordrecht), 46(1), 133.


Cecon E, et al. (2023) Novel repertoire of tau biosensors to monitor pathological tau transformation and seeding activity in living cells. eLife, 12.


Kong W, et al. (2023) Bile duct ligation increased dopamine levels in the cerebral cortex of rats partly due to induction of tyrosine hydroxylase. British journal of pharmacology.


Nordström U, et al. (2023) Mutant SOD1 aggregates formed in vitro and in cultured cells are polymorphic and differ from those arising in the CNS. Journal of neurochemistry, 164(1), 77.


Li H, et al. (2023) Hordenine improves Parkinsonian-like motor deficits in mice and nematodes by activating dopamine D2 receptor-mediated signaling. Phytotherapy research : PTR.


Ye Q, et al. (2023) Oncogenic BRAFV600E induces microglial proliferation through
extracellular signal-regulated kinase and neuronal death through c-Jun N-terminal kinase. Neural regeneration research, 18(7), 1613.

Scheid S, et al. (2023) Argon preconditioning protects neuronal cells with a Toll-like receptor-mediated effect. Neural regeneration research, 18(6), 1371.

