

Resource Summary Report

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NSC-34

RRID:CVCL_D356

Type: Cell Line

Proper Citation

(RRID:CVCL_D356)

Cell Line Information

URL: https://web.expasy.org/cellosaurus/CVCL_D356

Proper Citation: (RRID:CVCL_D356)

Defining Citation: [PMID:1467557](#), [PMID:17896795](#), [PMID:25193168](#), [PMID:27242431](#)

Comments: Miscellaneous: STR profile from personal communication of Rodriguez-Tarduchy Segovia, Gemma., Omics: Deep proteome analysis., Characteristics: Produced by the fusion of motor neuron enriched, embryonic 12-14 days mouse spinal cord cells with N18TG2 (PubMed=1467557).

Category: Hybrid cell line

Name: NSC-34

Synonyms: NSC 34, NSC34, Neuroblastoma x Spinal Cord-34

Cross References: BTO:BTO_0004488, Lonza:5, Wikidata:Q54931057

ID: CVCL_D356

Record Creation Time: 20250131T202130+0000

Record Last Update: 20250131T203940+0000

Ratings and Alerts

No rating or validation information has been found for NSC-34.

No alerts have been found for NSC-34.

Data and Source Information

Source: [Cellosaurus](#)

Usage and Citation Metrics

We found 408 mentions in open access literature.

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

Li S, et al. (2025) Exosomes originating from neural stem cells undergoing necroptosis participate in cellular communication by inducing TSC2 upregulation of recipient cells following spinal cord injury. *Neural regeneration research*, 20(11), 3273.

Kim A, et al. (2024) Cdk5 inhibition in the SOD1G93A transgenic mouse model of amyotrophic lateral sclerosis suppresses neurodegeneration and extends survival. *Journal of neurochemistry*, 168(9), 2908.

Fan YP, et al. (2024) UBC9-mediated SUMOylation of Lamin B1 enhances DNA-damage-induced nuclear DNA leakage and autophagy after spinal cord injury. *Journal of cellular physiology*.

Chen W, et al. (2024) OSMR is a potential driver of inflammation in amyotrophic lateral sclerosis. *Neural regeneration research*, 19(11), 2513.

Mahadev Bhat S, et al. (2024) Heterogeneous distribution of mitochondria and succinate dehydrogenase activity in human airway smooth muscle cells. *FASEB bioAdvances*, 6(6), 159.

Cascella R, et al. (2023) An in situ and in vitro investigation of cytoplasmic TDP-43 inclusions reveals the absence of a clear amyloid signature. *Annals of medicine*, 55(1), 72.

Shin SM, et al. (2023) Peripheral sensory neurons and non-neuronal cells express functional Piezo1 channels. *Molecular pain*, 19, 17448069231174315.

Hashimoto K, et al. (2023) Intrinsic structural vulnerability in the hydrophobic core induces species-specific aggregation of canine SOD1 with degenerative myelopathy-linked E40K mutation. *The Journal of biological chemistry*, 299(6), 104798.

Sleigh JN, et al. (2023) Boosting peripheral BDNF rescues impaired in vivo axonal transport in CMT2D mice. *JCI insight*, 8(9).

Wang SM, et al. (2023) Nucleoporin POM121 signals TFEB-mediated autophagy via activation of SIGMAR1/sigma-1 receptor chaperone by pridopidine. *Autophagy*, 19(1), 126.

Ackerman HD, et al. (2023) Bile Acids Induce Neurite Outgrowth in Nsc-34 Cells via TGR5 and a Distinct Transcriptional Profile. *Pharmaceuticals (Basel, Switzerland)*, 16(2).

Jin X, et al. (2023) miR-506-3p Relieves Neuropathic Pain following Brachial Plexus Avulsion via Mitigating Microglial Activation through Targeting the CCL2-CCR2 Axis. *Developmental neuroscience*, 45(1), 37.

Miyagi T, et al. (2023) Differential toxicity and localization of arginine-rich C9ORF72 dipeptide repeat proteins depend on de-clustering of positive charges. *iScience*, 26(6), 106957.

So HK, et al. (2023) Protein Arginine Methyltransferase 1 Ablation in Motor Neurons Causes Mitochondrial Dysfunction Leading to Age-related Motor Neuron Degeneration with Muscle Loss. *Research (Washington, D.C.)*, 6, 0158.

Anchesi I, et al. (2023) Cannabigerol Activates Cytoskeletal Remodeling via Wnt/PCP in NSC-34: An In Vitro Transcriptional Study. *Plants (Basel, Switzerland)*, 12(1).

Kask L, et al. (2023) Signatures in in vitro infection of NSC-34 mouse neurons and their cell nucleus with *Rickettsia helvetica*. *BMC microbiology*, 23(1), 113.

Wang D, et al. (2023) SPY1 inhibits neuronal ferroptosis in amyotrophic lateral sclerosis by reducing lipid peroxidation through regulation of GCH1 and TFR1. *Cell death and differentiation*, 30(2), 369.

Adriaenssens E, et al. (2023) Small heat shock proteins operate as molecular chaperones in the mitochondrial intermembrane space. *Nature cell biology*, 25(3), 467.

Giagnorio E, et al. (2023) MiR-146a in ALS: Contribution to Early Peripheral Nerve Degeneration and Relevance as Disease Biomarker. *International journal of molecular sciences*, 24(5).

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.