

Resource Summary Report

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CL2355

RRID:WB-STRAIN:WBStrain00005106

Type: Organism

Proper Citation

RRID:WB-STRAIN:WBStrain00005106

Organism Information

URL: <http://www.wormbase.org/db/get?name=WBStrain00005106>

Proper Citation: RRID:WB-STRAIN:WBStrain00005106

Description: Caenorhabditis elegans with name EMPTY from WB.

Species: Caenorhabditis elegans

Synonyms: EMPTY

Notes: Associated protein: Human A peptide|^{dvls50} [pCL45 (snb-1::Abeta 1-42::3' UTR(long) + mtl-2::GFP) I. Maintain at 16C. Pan-neuronal expresion of human Abeta peptide. Constitutive intestinal expression of GFP from marker transgene. Strain shows deficits in chemotaxis, associative learning, and thrashing in liquid. Strain also has incomplete sterility due to germline proliferation defects and embryonic lethality. Maintain at 16 C to reduce selection against transgene, although this does not alter the partial sterility. Reference: Wu Y., et al. J Neurosci. 2006 Dec 13;26(50):13102-13. [NOTE: The temperature-sensitive allele cc546 causes an M1957L change in SMG-1. The lesion is an atg>ttg transversion in exon 35. Flanking sequences follow with the mutation site indicated with a capital A: ttggtggtcgggtacaaaacgatattcaaga tcactggcagtcagtagtAtggttgatcagtttaggactcggatgatcg acatttgacaatttattg The lesion is detectable via SNP-snp with the mutation causing loss of an MslI site. Primers are for a 323 bp product. Digest with MslI to 86+237 in the wild type, uncut as 323 in the mutant. DJR701(f): CAGTCGTGAGCTTTGGATGCGTGC DJR702(r): TCGGGGATACGCAGATTCTTTCCC. Pedone ... Reiner G3 (2021).]"Mutagen:Gamma rays]"Transgene expression: Inducible pan-neuronal + intestine (marker)"[2020-08-03T20:49:03.516Z WBPperson324] Ressurect Strain: Genotype: smg-1(cc546); pCL45 [Psnb-1::human Amyloid beta 1-42::3' UTR (long); Pmtl-2::GFP]"

Affected Gene: WBGene00004879(smg-1)

Genomic Alteration: WBGene00004879(smg-1)

Catalog Number: WB-STRAIN:WBStrain00005106

Database: WormBase (WB)

Database Abbreviation: WB

Availability: available

Source References: [PMID:31797327](#), [PMID:32966472](#), [PMID:33466350](#), [PMID:35018947](#), [PMID:37549461](#), [PMID:38274404](#), [PMID:38500791](#), [PMID:38983916](#), [PMID:39212733](#)

Alternate IDs: WB-STRAIN:CL2355, CGC_CL2355

Organism Name: CL2355

Record Creation Time: 20230227T013257+0000

Record Last Update: 20260801T171136+0000

Ratings and Alerts

No rating or validation information has been found for CL2355.

No alerts have been found for CL2355.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: WormBase (WB)

Usage and Citation Metrics

We found 13 mentions in open access literature.

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

Huang W, et al. (2025) Lobetyolin, an anti-AD factor from the diet campanulaceae source, metabolism regulation and target exploration. Natural products and bioprospecting, 15(1), 64.

Pahal S, et al. (2025) The aggregate proteome of Caenorhabditis elegans mitochondria implicates shared mechanisms of aging and Alzheimer's disease. Frontiers in aging neuroscience, 17, 1713391.

AlOkda A, et al. (2025) Cyrene: A Novel Geroprotective Compound that Extends Lifespan and Healthspan in C. elegans and Drosophila. bioRxiv : the preprint server for biology.

AlOkda A, et al. (2025) Cyrene: a novel geroprotective compound that extends lifespan and healthspan in C. elegans and Drosophila. npj aging, 12(1), 12.

Seira Curto J, et al. (2025) Exogenous prion-like proteins and their potential to trigger cognitive dysfunction. *Molecular systems biology*, 21(8), 1004.

Araújo-Rodrigues H, et al. (2025) Neuroprotective Effects of Mushroom Biomass Digestive Fractions and Gut Microbiota Metabolites in Microglial and *Caenorhabditis elegans* Models of Neurodegeneration. *Nutrients*, 17(24).

Wen YP, et al. (2024) Exploring the therapeutic potential of *Nelumbo nucifera* leaf extract against amyloid-beta-induced toxicity in the *Caenorhabditis elegans* model of Alzheimer's disease. *Frontiers in pharmacology*, 15, 1408031.

Balasubramaniam M, et al. (2024) Rescue of ApoE4-related lysosomal autophagic failure in Alzheimer's disease by targeted small molecules. *Communications biology*, 7(1), 60.

Peng W, et al. (2024) DMT1 knockout abolishes ferroptosis induced mitochondrial dysfunction in *C. elegans* amyloid ? proteotoxicity. *bioRxiv : the preprint server for biology*.

Ayuda-Durán B, et al. (2024) Insights into the Neuroprotective Potential of Epicatechin: Effects against A β -Induced Toxicity in *Caenorhabditis elegans*. *Antioxidants (Basel, Switzerland)*, 13(1).

Bellver-Sanchis A, et al. (2024) G9a Inhibition Promotes Neuroprotection through GMFB Regulation in Alzheimer's Disease. *Aging and disease*, 15(1), 311.

Huang X, et al. (2023) PIWI-interacting RNA expression regulates pathogenesis in a *Caenorhabditis elegans* model of Lewy body disease. *Nature communications*, 14(1), 6137.

Kleawyothis W, et al. (2023) *Holothuria scabra* extracts confer neuroprotective effect in *C. elegans* model of Alzheimer's disease by attenuating amyloid- β aggregation and toxicity. *Journal of traditional and complementary medicine*, 13(1), 93.