# Resource Summary Report

Generated by NIF on Sep 17, 2026

## SJ4103

RRID:WB-STRAIN:WBStrain00034069
Type: Organism

### Proper Citation

RRID:WB-STRAIN:WBStrain00034069

### Organism Information

**URL:** http://www.wormbase.org/db/get?name=WBStrain00034069

**Proper Citation:** RRID:WB-STRAIN:WBStrain00034069

**Description:** Caenorhabditis elegans with name zcIs14(Pmyo-3::GFPmt) from WB.

**Species:** Caenorhabditis elegans

**Synonyms:** zcIs14(Pmyo-3::GFPmt)

**Notes:** Generated from papers flagged positive during the last month for data type afp_strain/other_strain.|"Reference WBPaper00060516 added based on published strain data identified by Textpresso literature search."|"Supplementary_genotype zcIs14 [myo-3::GFP(mit)]"|"Supplementary_genotype [myo-3::GFP(mit)]"|"WBStrain mapped, WBPaper00059578 added based on AFP_Strain data."|"WBStrain mapped, WBPaper00060029 added based on AFP_Strain data."|"WBStrain mapped, WBPaper00060923 added based on AFP_Strain data."|"WBStrain mapped, WBPaper00061072 added based on AFP_Strain data."|"WBStrain mapped, WBPaper00061110 added based on AFP_Strain data."|"WBStrain mapped, WBPaper00061409 added based on AFP_Strain data."|"WBStrain mapped, WBPaper00061527 added based on AFP_Strain data."|"WBStrain mapped, WBPaper00061562 added based on AFP_Strain data."|"WBStrain mapped, WBPaper00061617 added based on AFP_Strain data."|"WBStrain provided so WBPaper00060426 paper added based on AFP_Strain data."|"WBStrain provided so WBPaper00061698 paper added based on AFP_Strain data."|"WBStrain provided so WBPaper00061894 paper added based on AFP_Strain data."|"zcIs14 [myo-3::GFP(mit)]. Stable transgenic line expressing GFP at high levels in mitochondria of body wall muscle. Slight developmental delay and reduced brood size observed."

**Affected Gene:** WBGene00003515(myo-3)

**Genomic Alteration:** WBGene00003515(myo-3)

**Catalog Number:** WB-STRAIN:WBStrain00034069

**Database:** WormBase (WB)

**Database Abbreviation:** WB

**Availability:** available

**Source References:** PMID:32302543, PMID:32656511, PMID:32716378, PMID:33087356, PMID:33258406, PMID:33319173, PMID:33472069, PMID:33542359, PMID:33602504, PMID:33654835, PMID:34172445, PMID:34060057, PMID:34288362, PMID:34496255, PMID:36626986, PMID:36774344, PMID:36791646, PMID:37060964, PMID:37196064, PMID:37427543, PMID:37828862, PMID:38361361, PMID:38520690, PMID:38740431, PMID:39164296, PMID:39260886, PMID:39418305

**Alternate IDs:** WB-STRAIN:SJ4103, CGC_SJ4103

**Organism Name:** SJ4103

**Record Creation Time:** 20230227T013636+0000

**Record Last Update:** 20260912T181704+0000

## Ratings and Alerts

No rating or validation information has been found for SJ4103.

No alerts have been found for SJ4103.

## Data and Source Information

**Source:** Integrated Animals

**Source Database:** WormBase (WB)

## Usage and Citation Metrics

We found 33 mentions in open access literature.

**Listed below are recent publications.** The full list is available at NIF .

Cong W, et al. (2026) Mitochondrial Enzymes Mimetic Ultrasmall Palladium Nanozymes Prevent Senescence and Neurodegeneration Through Metabolic Reprogramming. Advanced science (Weinheim, Baden-Wurttemberg, Germany), 13(32), e23931.

Xue D, et al. (2026) Histone methyltransferase SET-18/SMYD2-mediated activation of NADase TIR-1d/SARM1 increases mtROS to promote aging. iScience, 29(2), 114649.

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.

Yan J, et al. (2025) Eukaryotic Elongation Factor 2 Kinase EFK-1/eEF2K promotes starvation resistance by preventing oxidative damage in C. elegans. Nature communications, 16(1), 1752.

Pu L, et al. (2025) Shaker/Kv1 potassium channel SHK-1 protects against pathogen infection and oxidative stress in C. elegans. PLoS genetics, 21(2), e1011554.

Motwani S, et al. (2025) RICTOR regulates an interspecies crosstalk that influences longevity through a novel methionine cycle-mitophagy axis. bioRxiv : the preprint server for biology.

Li W, et al. (2024) The clinical antiprotozoal drug nitazoxanide and its metabolite tizoxanide extend Caenorhabditis elegans lifespan and healthspan. Acta pharmaceutica Sinica. B, 14(7), 3266.

Li R, et al. (2024) Protective Effects of Velvet Antler Methanol Extracts on Hypoxia-Induced Damage in Caenorhabditis elegans through HIF-1 and ECH-8 Mediated Lipid Accumulation. Nutrients, 16(14).

Liu M, et al. (2024) N-Acetylcysteine Alleviates Impaired Muscular Function Resulting from Sphingosine Phosphate Lyase Functional Deficiency-Induced Sphingoid Base and Ceramide Accumulation in Caenorhabditis elegans. Nutrients, 16(11).

Xia Q, et al. (2024) Peroxiredoxin 2 regulates DAF-16/FOXO mediated mitochondrial remodelling in response to exercise that is disrupted in ageing. Molecular metabolism, 88, 102003.

Zhang C, et al. (2024) Intestinal lysozyme1 deficiency alters microbiota composition and impacts host metabolism through the emergence of NAD+-secreting ASTB Qing110 bacteria. mSystems, 9(3), e0121423.

Sharifi S, et al. (2024) Reducing the metabolic burden of rRNA synthesis promotes healthy longevity in Caenorhabditis elegans. Nature communications, 15(1), 1702.

Tsai SH, et al. (2024) Peripheral peroxisomal ??-oxidation engages neuronal serotonin signaling to drive stress-induced aversive memory in C.??elegans. Cell reports, 43(4), 113996.

Kim J, et al. (2024) Cross comparison of imaging strategies of mitochondria in C. elegans during aging. bioRxiv : the preprint server for biology.

Li H, et al. (2024) Dimethylsulfoniopropionate (DMSP) Increases Longevity and Mitochondrial Function in Caenorhabditis elegans: Implications for the Role of the Global Sulfur Cycle in Terrestrial Ecosystems. Environment & health (Washington, D.C.), 2(8), 572.

Sun M, et al. (2024) TSG Extends the Longevity of Caenorhabditis elegans by Targeting the DAF-16/SKN-1/SIR-2.1-Mediated Mitochondrial Quality Control Process. Antioxidants (Basel, Switzerland), 13(9).

Zhou L, et al. (2024) Temperature perception by ER UPR promotes preventive innate immunity and longevity. Cell reports, 43(12), 115071.

Chen TY, et al. (2024) Mitochondrial S-adenosylmethionine deficiency induces mitochondrial unfolded protein response and extends lifespan in Caenorhabditis elegans. Aging cell, 23(4), e14103.

Zhu H, et al. (2024) Loss of the ceramide synthase HYL-2 from Caenorhabditis elegans impairs stress responses and alters sphingolipid composition. The Journal of biological chemistry, 300(6), 107320.

Valera-Alberni M, et al. (2024) Novel imaging tools to study mitochondrial morphology in Caenorhabditis elegans. Life science alliance, 7(11).