C. elegans Synchronizer

Get Healthy Synchronized L1’s without Phenotypes caused by Bleach or Food Arrest in just a few steps.

The C. elegans Synchronizer (CES) is a manual worm Synchronizer that allows you to harvest small and large volumes of tight synchronized L1’s without the use of chemicals or starvation. It enables you to get synchronized worms that do not contain phenotypes caused by bleach or food arrest. Resulting in a more reliable and consistent start of your experiments compared to traditional synchronization methods.

The C. elegans Synchronizer allows you to:
- Synchronize a mixed worm population into L1’s
- Obtain nematodes without phenotypes caused by bleaching and starvation
- Start experiments without the need of additional worm controls
- Higher/absolute level of synchronization compared to traditional methods
- Harvest small as well as large volumes in a short period of time
- Synchronize without extensive training and experience in bleaching

Benefits
- No bleach or chemicals
- Healthier Worms
- Removes variables
- Improves level of synchronization
- No training required
- Easy and fast
A reliable start of your experiments Each and Every time.

Figure A. Results showing the reproducibility of the CES to generate synchronous L1 population across 34 replicates.
L1 worms were injected in the SydLab platform developed by Nagi Bioscience and cultivate on chip during 5 days. Each channel (represented on the x-axis) corresponds to 3 to 8 microfluidic chambers (example on the right side of this panel) containing 1 to 4 worms. Each dots represented on the graphic correspond to the timing (in hours) when the first egg is observed in average in the corresponding channel. The error bars represent the standard deviation.

Figure B. Comparison of the percentage of fertile worms between three methods of L1 synchronization.
Each bars represented on the graphic correspond to the percentage of chambers (in average) with fertile adult worms. n corresponds to the number of chambers analyzed. The error bars represent the 95% CI.

Figure C. Variation of the timing to reach the adult stage across single individuals.
Each dots represented on the graphic correspond to the variation of the timing for a single worms to reach the adult stage, compared to the whole population analyzed. n corresponds to the number of single worms analyzed. sd corresponds to the value of the standard deviation.

Data is acquired by Nagi Bioscience located in Switzerland, Lausanne.
Working on the first Organism-on-Chip technology using C. elegans. Creating a technological platform that is fully automated in vitro handling, culture and analysis. Which will unlock endless possibilities for Toxicity testing, Drug discovery, Anthelmintics and many more applications.

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