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Counting worms / C. elegans / nematodes

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1 Works for me dx.doi.org/10.17504/protocols.io.5ung6ve

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ABSTRACT

Count worms, e.g. arrested L1s after an overnight starvation in M9 on a rotating wheel.

MATERIALS

NAME	CATALOG #	VENDOR
Leica L2 binocular microscope	View	
Menzel Gläser (slides)	View	
Click counter	View	Amazon
Wormy solution	View	

STEPS MATERIALS

NAME	CATALOG #	VENDOR
Wormy solution	View	
Click counter	View	Amazon
Leica L2 binocular microscope	View	

1 Shake your wormy solution to make the concentration of worms in it more homogeneous.

Wormy solution
View

2 Pipet 10 microlitres of wormy solution in a streak onto a glass slide. Don't pipet the 10 ul in a blob. That would make it harder to count.

3 From left to right, or right to left, follow the streak under the microscope and count the worms. For this, you can use a manual click counter to make it easier. You should aim to count between 50 and 150 worms. If the number of worms in 10 ul is higher than this, make a dilution of the wormy solution to achieve between 50 and 150 worms in 10 ul. If the number of worms is less than 50 per 10 ul, consider increasing the volume counted.

Click counter
by Amazon
View

Leica L2 binocular microscope
View

4 Count another two slides and take the arithmetic mean. You can then infer the concentration of worms for any volume. The inferred concentrations from the three replicates give you an idea about the range within which the true concentration of worms lies.