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Long term effect of Aldicarb on *C. elegans*

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Protocol status: Working

We use this protocol and it's working

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Abstract

- Aldicarb is a cholinesterase inhibitor which prevents the breakdown of acetylcholine in the synapse
- Reported to paralyze *C. elegans*
- Strains of interest believed to be resistant to the paralytic effect
- Strains: OW1601 & OW1603

Troubleshooting



- 1 Bleach synchronize the worms on a Friday
- 2 Following Monday, seed 4 maintenance plates with OP50 and dry under hood
- 3 Add 150ul of Aldicarb solution to the 4-maintenance plate to reach a final concentration of 3uM and leave to absorb overnight
- 4 The following day (Tuesday), refeed the arrested L1s on the treatment plates and normal OP50 seeded plates i.e. OW1601 L1s refeed on 2×3uM aldicarb plate + 2xnormal OP50 seeded plate. Same for OW1603. So, each strain will have two control plates and two treatment plates- Total 8 plates
- 5 Keep one set of plates at 25C and the other set at 20C
- 6 The day before tracking (Thursday) add 35ul of 300uM AK to 24 imaging plates
- 7 Also, seed those drugs treated 24 imaging plates and additional 24 non-treated imaging plates with 50ul of 1:10 OP50 and leave to dry O/N
- 8 On the day of tracking (Friday), transfer 5 worms onto each imaging plate and image for 15mins on Phenix

Track 8 sets: (2 treatment sets + 2 control sets with no treatment) x 2 growth temperatures