Attractant Media

From labwiki

Thoughts on making heterogenous media for experiments where we want to localize worms to a specific region of the plate.

Choice of Attractant

Some work by an iGEM team (iGEM team (http://2013.igem.org/Team:Valencia_Biocampus) WormBook Attractants (http://www.wormbook.org/chapters/www_behavior/behavior.html#sec5) suggests that MgSO4 is a reasonable attractant for *C. elegans*, though preliminary tests in this lab were not very promising. An ideal attractant should be soluble in agar media so that it can be incorporated into defined regions of the plate.

Media Preparation

Media Recipe (per Litre)

NaCl - 3g

Agar - 17g

Peptone - 2.5g

1M CaCl2 - 1mL

5mg/mL Cholesterol - 1mL

1M MgSO4 - 1mL

1M KPO4 - 25mL

To make a heterogenous plate, prepare two sets of media, one following the above recipe, and one more following the above recipe + your attractant of choice. Once your media are both ready, prepare to pour the plates. You'll need the following:

As many plates as you'd like to poor.

A metal test tube cap, must be metal and must have a relatively sharp edge.

Tweezers.

Ethanol flame/burner.

Ethanol jar for flame sterilization.

P1000 pipette & tips.

Obvious instructions regarding aseptic technique will be left out of the following description, be sterile! First, pour the normal agar in to a plate, fill the plate as much as you'd like. Let the normal agar set fully, shouldn't take more than 10-15 minutes. Once the normal agar is set, ethanol flame sterilize the metal test tube cap, holding it securely with the tweezers. Once the cap has cooled enough to hold with your gloved hand, grab it by the top (closed end, keep the metal edge sterile). Press firmly into the set normal agar with the edge of the metal cap, the agar should cut, not crack, twist a little if you need to. Once the metal cap is all the way through the agar, to the bottom of the plate, angle it slightly to pop the disk of agar out. It may be necessary to use the tweezers to

remove the agar disk. With the disk removed, use the P1000 to fill the empty region with your special attractant media, making sure to fill the hole as completely as possible. Any cracks or edges will give the worms added cause for burrowing. Let the added agar set.