

Chemotaxis on chip test

Aim: See bacterial movement on chip caused by exposing the bacteria to a repellent.

Materials:

- Chip: Ibidi commercial chip (2 mm) X (number of different concentrations).
- Standard microscope glass X (number of different concentrations).
- Standard microbiology microscope (can get to X100).
- Motile E.coli bacteria at OD ~0.1
- Repellent at different concentration

Protocol:

For every different concentration of repellent:

1. Place the chip on the glass.
2. Place the glass with the chip inside the microscope. set it to X50-X100.
3. Pipette 50 μ l of the bacterial liquid into one of the entrance of the chip. wait until the chip fills up with the liquid.
4. Pipette 10 μ l of the repellent into the other entrance of the chip.
5. look at the results through the microscope every minute up to 15. **write the results**

We expect to see 3 different concentration of bacteria as a factor of the distance from the repellent: low near the repellent, then high and in far side, close to the original concentration (OD ~0.1).

For repellent Benzoate can be used. Concentration: 4M, 2M (I think it might be an over Kill :)). 1M. 0.1M 0.01M.