Protocol 1: Dissecting Early-stage Embryos from *Archegozetes longisetosus* Adults

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Materials

1X phosphate buffered saline (pH= 7.4)
Small weighing dish
Tungsten needle (prepared via Brady 1965)

1. Prepare a drop of 1X PBS in a small weighing dish.

2. Prepare a sharpened tungsten needle

3. With a pair of fine forceps, collect adults and place them in the drop of PBS. Place the mites in a 4°C incubator for 10 minutes.

4. Remove the mites from the incubator.

5. With one hand, grab an adult mite with the fine forceps at the prosomal/ opisthosomal boundary. With the other hand, make a long sagittal incision across the dorsal opisthosoma with the sharpened tungsten needle.

6. Use the tungsten needle to gently remove the two large embryo-containing oviducts from the opisthosoma. Some of the embryos will fall from the oviducts.

7. Repeat steps 5-6 until enough embryos have been collected.

8. Rinse the oviducts/ embryos 5 times with 1X PBS, making sure to remove the debris.

9. The embryos are now ready for dechorionization for in situ hybridizations or prepared for microinjections.

Reference

Brady, J. (1965). A simple technique for making very fine, durable dissecting needles by sharpening tungsten wire electrolytically. Bulletin of the World Health Organization, 32.