



AquaVac™ Injectable Vaccines Guide

Procedure for Injection Vaccination with repeating gun system

I. Materials

- AquaVac™ Injectable Vaccine.
- Repeating gun (Kaycee or similar).
- 22 gauge, 6 mm hypodermic needles.
- Fish anesthetic.

II. Pre-Injection Preparation

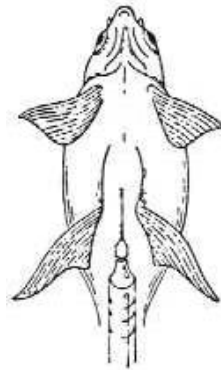
1. Shake vaccine well before using.
2. Peel back center of aluminum seal. Do not remove the seal or stopper.
3. Wipe the exposed center of the stopper with alcohol.
4. Hold the feed tube and dip the needle portion of the tube in alcohol and carefully ignite to flame sterilize. Other effective methods of sterilization may be used.
5. Insert the sterilized needle through the stopper. Take care not to touch the sterilized section of the tube.
6. Attach the plastic tubing to the intake port of the gun.
7. Prime the gun by pumping the plunger or by drawing through with a 50ml syringe until the vaccine enters the gun.
8. Attach the appropriate needle to the gun.
9. Check that the gun is delivering the correct dose of vaccine.

III. Anesthesia of Fish

- Follow the manufacturer's recommendations for dosage. Determine the effectiveness of the anesthesia solution by testing a small group of fish.
- Place as many fish in the anesthesia solution as can be injected in a few minutes. Using two baths ensures a constant supply of anesthetized fish.
- Do NOT over-anesthetize.

IV. Injection

1. Remove fish from anesthesia solution and place on injection table.
(Wet tables reduce stress).
2. Hold the fish with ventral side up and the head away from your body.
3. Insert the needle by directing it just anterior (forward) of the pelvic fins into the peritoneal cavity. The needle should be inserted to a depth of approximately ¼ inch (6mm). Pull the gun trigger to inject the vaccine. Replace the needle before it becomes dull and difficult to insert.
4. Return the vaccinated fish to the appropriate holding area.



V. Precautions Against Self-Injection

- Use an injection gun designed to take a sterimatic sleeve. This will reduce the chance of needle stick injuries.
- Wear gloves to keep the hands warm, e.g. wool glove inside a rubber glove.
- Do not try to go too fast or inject for too long at a time.

AVOID SELF-INJECTION

VI. Post-Injection Clean-Up

- The vaccine should be used within 5 hours of the time when the bottle cap is broached. Any unused vaccine should be discarded at the end of a day's use.
- Discard injection needles (into sharps receptacle) and tubing, wash the gun in warm soapy water and rinse well.
- Care should be taken to note the arrangement of parts if the gun is disassembled.

Available AquaVac™ Injectable Vaccines include:

- AquaVac™ ERM
- AquaVac™ Vibrio
- AquaVac™ Furovac™ 5
- AquaVac™ Furovac™ 5 Vibrio
- AquaVac™ FNM^{plus}
- AquaVac™ IPN