MicroFluidics Ware
Infinity Innovation

Rheotax Gate Operation Manual

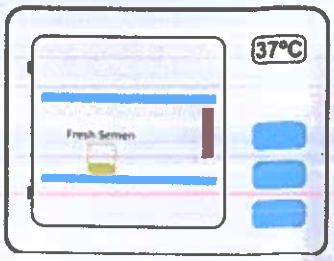

Figure 1

1. Incubate semen sample 15 min at 37 °C for liquefaction. (Fig. 1)
2. Open the device package with care.
3. Use a 1 mL syringe to draw 1000 µL of liquefied semen. If there is insufficient volume, add sperm washing solution to give 1000 µL.
4. Take approximately 1000 µL of semen sample with an injector. Do not get air bubbles into the syringe while taking samples. These air bubbles will affect the performance of the device (Figure 2).

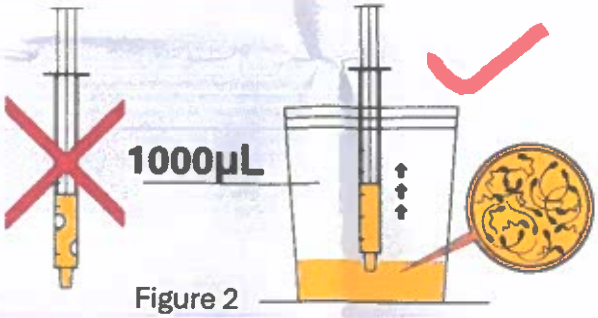

Figure 2

5. Hold the syringe in a vertical position, insert the tip into the inlet (1) and apply gentle pressure to achieve a seal. Avoid the formation of bubbles under the membrane (Figure 3).
6. Prepare a fresh syringe with 1000 µL of sperm wash solution. Hold the syringe in a vertical position, insert the tip into outlet No. (3)

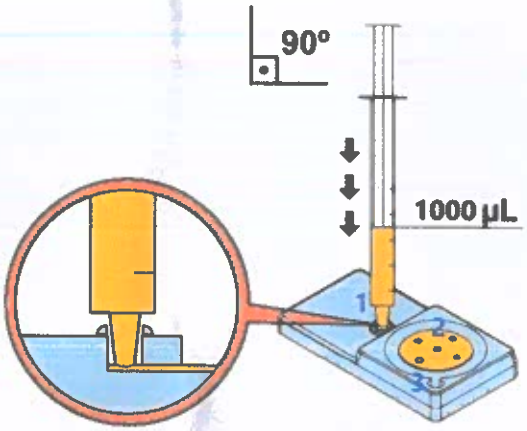

Figure 3

Full the entire upper chamber with the sperm wash solution (media). It is recommended to use the five inlet/outlet ports No.(2) instead of the outlet No.(3) to ensure an uninterrupted flow of media over the membrane. (Figure 4).

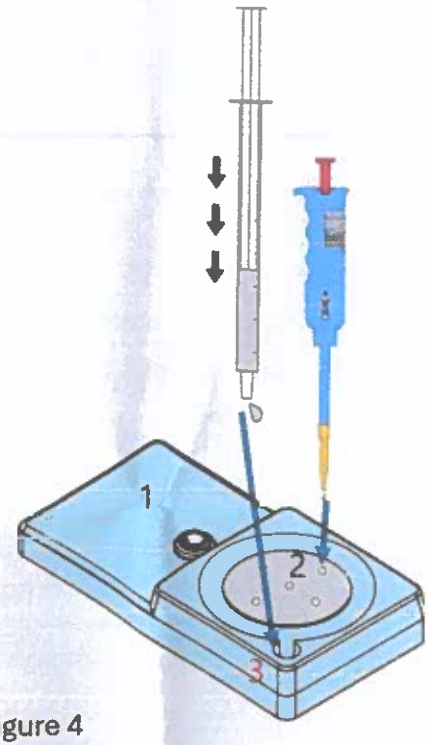

Figure 4

7. Incubate the prepared device at 37°C for 30 minutes. If you are using HEPES buffered media, you don't need CO2 incubator. If you use bicarbonate buffered media, you must use 5% CO2 incubator. (Figure 1).
8. After 30 minutes incubation, insert a fresh 1 mL syringe into outlet No. (3). Slowly aspirate a maximum of 700 µL of the sperm-containing fluid (Figure 5).
9. Transfer the collected material to a capped tube.

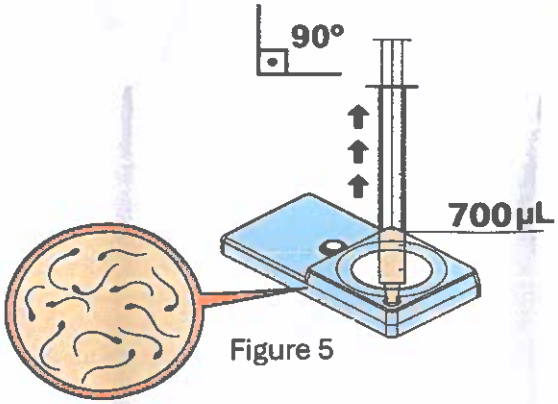

Figure 5