



## Non-Surgical Embryo Transfer (NSET™) Device

### Product Information

**Catalogue #:** 60010    **Quantity:** 10 units per box

### Intended Use

This device is used for transcervical transfer of embryos into rodents. For research purposes only. Not intended for human or animal diagnostic or therapeutic uses.

### Handling

Devices are single use only. Discard after use.

### Prior to NSET transfer

For the production of embryos for transfer and pseudopregnant females to serve as recipients, standard transgenic methodologies are used. Matings are set up with male and female mice as in standard transgenic procedures. Female donors can be superovulated if desired. Embryos are incubated in EmbryoMax® KSOM media (Millipore#MR-106-D) or desired culture media. Embryos should be 3.5 days post-coitum (3.5 dpc) on the day of NSET transfer; recipient females should be 2.5 dpc on the day of NSET transfer.

### Transfer Procedure

1. Place a 15µl drop of KSOM onto the lid of a 100 mm petri dish (Falcon 1029, or similar.)
2. Load 12 – 20 blastocysts into the KSOM drop using a standard embryo handling pipet. (Note: optimal number of embryos to transfer will vary depending upon mouse strain and manipulations embryos have received.)
3. Place the NSET device onto a P-2 Pipetman that has been set to 1.8µl.
4. Press Pipetman plunger to first stop, lower tip into media and slowly pull embryos into the tip of the NSET device.
5. Carefully set Pipetman to 2.0 µl to create a small air bubble at NSET tip (this helps prevent embryos from wicking out during NSET insertion into mouse.) Gently lay Pipetman with loaded embryos on its side near mouse cage. Avoid jostling the NSET tip.

6. Place the un-anesthetized recipient female on the top of a cage, allowing the mouse to “grab” the cage bar surface with its forefeet. Grasp the midpoint of the tail using thumb and forefinger, and angle the tail upward while lightly pressing the base of the tail with the opposite edge of the hand.
7. Gently place smaller piece of tubing into mouse’s vagina, then remove quickly. This will help open the vagina.
8. Place speculum into vagina. Using a light with flexible arm to shine into the speculum, locate the cervix.<sup>1</sup> **It is important to use adequate lighting to enable viewing of the cervix.**
9. While holding the female mouse with one hand as described in step #5, carefully pick up the pipetman and insert the NSET tip into the speculum, through the cervix and into the uterus. Once NSET hub contacts speculum, expel embryos by pressing plunger to first stop.
10. Immediately remove NSET and speculum. Return mouse to cage. No post-procedure monitoring is required.

### References

<sup>1</sup>See p.160 of A Colour Atlas of the Anatomy of Small Laboratory Animals: Volume 2: Rat, Mouse, Hamster; Peter Popesko, Viera Rajtová, Jindřich Horák. London, Wolfe Pub., 1992.

**This product is intended for research purposes only.**

**CAUTION: Not intended for human or animal diagnostic or therapeutic uses.** Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product.

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