EGET VIBRATION KIT

References

Information Related to EGET (Reference Literature Included)

ZOONLAB
ANIMAL HUSBANDRY EXPERTS

①Intravaginal Progesterone for Estrous Cycle Synchronization

A new method that transforms mouse breeding. Simply applying a progesterone cream intravaginally synchronizes the estrous cycle with high precision, and combining it with an anti-inhibin antibody increases litter size to 1.6× that of natural mating. Pseudopregnant females can also be produced on schedule without vasectomized males—low-invasive and labor-saving, achieving both reduced animal numbers and greater experimental efficiency.

[Reference]
Sato B, Yamashita Y, Shindo M, et al.
Intravaginal Progesterone Application as an Efficient and Reproducible Tool for Synchronizing the Mouse Estrous Cycle.
Reprod Med Biol. 2026;25(1):e70027. doi:10.1002/rmb2.70027

②Application of Easy-ET to Mice

We extended our sonic-vibration-based pseudopregnancy induction method (Easy-ET), originally developed in rats, to mice, successfully generating genome-edited mice as well. By eliminating the need for vasectomized males, this approach reduces housing space and costs while enabling pseudopregnancy induction, genome editing, and embryo transfer to be completed within a single day.

[Reference]
Wake Y, Endo M, Tsunoda S, et al.
Successful induction of pseudopregnancy using sonic vibration in mice.
Sci Rep. 2023;13(1):3604. Published 2023 Mar 3. doi:10.1038/s41598-023-30774-x

③Shortened Stimulation Protocol for Easy-ET

Pseudopregnancy induction is an essential step for embryo transfer. This study shows that even when the sonic-vibration stimulation of the Easy-ET method is shortened from 7×30 s to just 2×30 s, pseudopregnancy is still successfully induced and normal offspring are obtained. It also enables a same-day protocol—stimulation and embryo transfer performed together on the day of estrus—streamlining workflows such as genome-edited animal production.

[Reference]
Endo M, Tsunoda S, Tawara H, et al.
Successful pseudopregnancy of rats by short period artificial stimulation using sonic vibration.
Sci Rep. 2022;12(1):1187. Published 2022 Jan 24. doi:10.1038/s41598-022-05293-w

④Establishment of Easy-ET Using Sonic Vibration

Easy-ET: a novel method that induces pseudopregnancy in rats using only sonic vibration stimulation—no mating with vasectomised males required—and successfully yields offspring via embryo transfer. By eliminating the need to maintain vasectomised males, it cuts housing space and cost while streamlining strain production and maintenance, including for genome-edited rat lines. A must-know technique for researchers.

[Reference]
Kaneko T, Endo M, Tsunoda S, et al.
Simple induction of pseudopregnancy by artificial stimulation using a sonic vibration in rats.
Sci Rep. 2020;10(1):2729. Published 2020 Feb 17. doi:10.1038/s41598-020-59611-1

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