

SOP No: AHP 67

SUBJECT: Superovulation of Laboratory Mice

PRECAUTIONS: Care must be taken when making up and using the hormones as cumulative effects may follow exposure. Do not breathe in dust if vial breaks.
Keep stock vials refrigerated.
Keep working solutions frozen until required.
Gloves, eye protection, long sleeve gown, closed in shoes.

POLICY: Operator must be experienced and competent in this technique.
Mice must be given an appropriate wash out period if re-used (requires prior AEC approval.)

EQUIPMENT: sterile PBS
sterile microtubes
tube rack
25g needles, 5ml and 1ml syringes
Folligon and Chorulon

PROCEDURE:

To make up **CHORULON** (hCG or chorionic gonadotrophin) hCG - dosage = 5 i.u./mouse/dose (administered i/p)

1. Chorulon is available in concentrations of 500 i.u., 1500 i.u. or 5000 i.u.
2. Dissolve the chorulon in 5 ml of solvent provided and remove from vial with a syringe containing 5 ml PBS.
3. Bring the concentration of chorulon to 500 i.u./ml (10 ml soln).
4. Distribute into 20 microtubes (0.5 ml per tube) and freeze.
5. Dilute to 1/5 to give a concentration of 100 i.u./ml before use i.e. 0.5 ml chorulon in 2 ml PBS.

To make up **FOLLIGON** (PMSG or pregnant mouse serum gonadotrophin) PMSG - dosage = 5 i.u./mouse/dose (administered i/p)

6. Folligon is available in 1,000 i.u., 5,000 i.u. and 20,000 i.u. concentrations.
7. Mix 5 ml of solvent provided into the folligon using a syringe to give a working conc. of 100 i.u./ml

8. **Aliquot mixture into 10 microtubes (1 ml per tube and freeze**

Superovulation procedure

9. **Restrain the mouse by the scruff. Inject each female mouse with 0.05 ml PMSG administered into the peritoneal cavity.**
10. **46 - 48 hours later, dilute 0.5ml hCG (in vial) in 2ml PBS**
11. **Restrain the mouse; administer 0.05ml I/P to each female mouse. Place females with males immediately post injection.**
12. **Check mice for copulation plugs the following morning.**

RECOMMENDATIONS:

To ensure that sufficient recipients are mated, place recipients with males three days before the required plugging date

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REVISED:

REFERENCES

Chemwatch: <http://hazsafety.pf.uq.edu.au/chemstoreweb/>
Jax Mice Literature <http://jaxmice.jax.org/library/notes/434c.html>
Hogan, B Beddington, R Constantini F. Lacy, E 1994, Manipulating the Mouse Embryo: A Laboratory Manual. Cold Spring Harbor Laboratory Press; 2nd edition.