Suprelorin®

DESCRIPTION

Suprelorin® is a safe, biocompatible injectable implant, for the temporary suppression of fertility and reduction of testosterone in male dogs.

The implant contains a biocompatible lipid matrix (saturated triglyceride) which provides a sustained release of Deslorelin over time. The implant is a solid, opaque, white to pale yellow cylinder approximately 2.3 mm x 12.5 mm length.

KEY PROPERTIES AND BENEFITS

- All the advantages of castration without the surgery.
- A unique treatment in veterinary medicine.
- Central level mode of action.
- As simple as microchipping.
- Reversible down regulation of male dogs' hormones.
- Rapid and lasting lowering of testosterone levels.
- Temporary infertility.
- Proven safety.

PRECAUTIONS

Pregnant women and others of childbearing age should exercise caution when handling this product. Direct contact should be avoided.

COMPOSITION

Deslorelin acetate 4.7mg Suprelorin®.

DOSAGE AND DIRECTIONS

1. Remove the Luer Lock cap from the implanter.
2. Place 1 implant subcutaneously between the shoulder blades of the dog.
3. Administer one implant only, irrespective of the size of the dog.
4. It is necessary to keep treated animals away from bitches on heat for 4–6 weeks following implantation. (This precaution does not apply to repeated sequential doses administered immediately at the end of duration of a previous dose).
5. Repeat treatment every 6 months.

PRESENTATION

Boxes of two implants preloaded in implanters.

STORAGE

Store at 2°C to 8°C (refrigerate, do not freeze).

ACVM NUMBER

A9158.

Suprelorin® is a Registered Veterinary Medicine. Available only under Veterinary Authorisation. Registered Pursuant to the ACVM Act 1997.
MODE OF ACTION
Deslorelin acts by suppressing the function of the pituitary gonadal axis when applied in a low, continuous dose. This suppression results in the failure of treated animals to synthesise and/or release follicle stimulating hormone (FSH) and luteinising hormone (LH), the hormones responsible for the maintenance of fertility.

A specific site of action: central target
The active, Deslorelin, targets GnRH receptors specifically. These receptors are primarily located in the anterior lobe of the pituitary gland (adenohypophysis).

Down-regulation / desensitisation of GnRH receptors
Sustained, low level administration of GnRH analogues causes down regulation of the GnRH receptors in the pituitary gland. There is also a parallel desensitisation of Leydig cells to luteinising hormone, a well-known and widely studied mechanism in a variety of species. This desensitisation appears to occur as a result of internalisation and degradation of GnRH receptors within cells, more rapidly than they can be replaced. The process is believed to begin with the receptor becoming phosphorylated by G-Protein Coupled Receptor specific kinases followed by ß-arrestin binding and targeting the receptor for internalisation.

Suppression of testosterone production and spermatogenesis
Sustained treatment with Deslorelin results in decreased LH and FSH, leading to a suppression of serum testosterone and an inadequate environment for sperm production (e.g. disruption of the cytoarchitecture of the seminiferous tubules and loss of reproductive function).

TIME TO EFFECT
After implantation, there is an initial increase in plasma testosterone, then, a rapid decrease to an undetectable level (below 0.4 ng/ml) within 9 to 20 days of implantation.

SAFETY
• Minimal side effects.
• No significant effects have been observed on general health, behaviour, food consumption, bodyweight or clinical chemistry and haematology.
• No interactions with other drugs used concomitantly.
• No anaesthetic, no surgery, no scarring.

REVERSIBILITY
With respect to testosterone levels during clinical trials, more than 80% of dogs (53/63) administered one or more Suprelorin® implants returned to normal plasma testosterone levels (>0.4 ng/ml) within 12 months of implantation. Ninety-eight percent of dogs (62/63) returned to normal plasma testosterone levels within 18 months of implantation.