

GnRH agonist - Deslorelin (Suprelorin®)

Fact Sheet Compiled by: Sue Walker

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Commercial Name:	Suprelorin®
Contraceptive Product:	Deslorelin
Product Category:	GnRH agonist (implant)
Product Availability:	4.7mg widely available through veterinary drug distributors in the EU; 9.4mg available through Peptech Animal Health, Australia .
Restrictions and/or permit required by Importing Country:	Current knowledge: License required UK; all others unknown. EGZAC recommends always checking with your local licensing authority
Mechanism of action:	GnRH agonists work by temporarily suppressing the reproductive endocrine system and preventing production of pituitary (FSH and LH) and gonadal hormones (estradiol and progesterone in females and testosterone in males). The observed effects are similar to those following ovariectomy or castration, but are reversed after the hormone content of the implant is depleted. GnRH agonists first stimulate the reproductive system, which can result in oestrus and ovulation in females or the temporary enhancement of testosterone and semen production in males. Then, down-regulation follows the initial period of stimulation.
Product information	Although deslorelin can also be an effective contraceptive in males, we recommend its use primarily in females, since monitoring efficacy in females by suppression of estrous behaviour or gonadal steroids in faeces is more straightforward than ensuring continued absence of sperm in males, since most institutions cannot perform regular semen collections. It can, however, be used to ameliorate aggression in males but higher dosages are usually needed. See taxon sheets for specific information.
Delivery Route and dose:	Sub cutaneous implant, see taxon sheets for sites of insertion and doses . Full immobilization recommended for insertion. The implant comes pre-loaded in an insertion device. The implant area should be clipped and cleaned. A fold of skin should be lifted and held between the thumb and fingers as the obturator (sent with the implant) is inserted. To prevent breakage of the implant during insertion, the barrel of the obturator should be slowly withdrawn as the implant is expelled. The implant should be held steady as the obturator is removed to insure release of the implant so that it remains in place under the skin. EGZAC recommends always reading the manufacturer's data sheet
Females	

Latency to effectiveness:	Generally 3 weeks following insertion
Oestrous cycles during contraceptive treatment:	Initial oestrus and ovulation can occur, then no oestrus cycle. The oestrus and ovulation that can occur within 3 weeks following implant insertion can be suppressed with supplemental progestin. Treatment for 7 days before and 7 days after.
Managing of initial stimulation phase:	1) separation of sexes for 3 weeks; 2) Oral Megestrol acetate pills daily, 7 days before and 7 days after; 3) Pre-existing progestagen implants can be left in place for 1 week after insertion of Suprelorin; leaving them in place may compromise Suprelorin efficacy. Depo-Provera should not be used as product interference may occur.
Use during pregnancy:	Not recommended, can cause abortion
Use during lactation:	No known contraindications once lactation has been established; however, treatment during pregnancy may impede proper mammary development.
Use in prepubertals or juveniles:	Because deslorelin suppresses gonadal steroids, its use may delay epiphyseal closure of the long bones, resulting in taller individuals, similar to the effects of pre-pubertal spaying and neutering in domestic dogs and cats. GnRH agonist use in prepubertal domestic cats was followed by reproductive cycles after treatment ceased. However, species differences may occur.
Use in seasonal breeders:	Treatment should be given more than 2 months prior to expected breeding season
Duration	4.7 mg is licensed for 6 months, 9.4mg is licensed for 12 months in the domestic male dog, responses may vary widely between species and individuals. Dose but not duration can not be increased by increasing the number of implants. Dose is taxon specific (see taxon sheets)
Reversibility	Cases of reversibility have been demonstrated; however, this is individual and taxon dependent, please see taxon sheets .
Effects on Behaviour	Data deficient
Effects on sexual physical characteristics	May cause the suppression of physical secondary sexual characteristics. Species with induced ovulation may ovulate and become pseudo-pregnant when first treated. See taxon sheets
Males	
Latency to effectiveness:	Males may remain fertile for 2 or more months following insertion
Use in prepubertals or juveniles:	Because deslorelin suppresses gonadal steroids, its use may delay epiphyseal closure of the long bones, resulting in taller individuals, similar to the effects of pre-pubertal spaying and neutering in domestic dogs and cats.
Use in seasonal breeders:	Treatment should be given more than 2 months prior to expected breeding season.
Duration:	4.7 mg is licensed for 6 months, 9.4mg is licensed for 12 months in the domestic male dog, responses may vary widely between species and individuals. Dose but not duration can not be increased by increasing the number of implants. Dose is taxon specific (see taxon sheets).
Reversibility	Cases of reversibility have been demonstrated; however, this is individual and taxon dependent, please see taxon sheets .
Effects on Behaviour	Data deficient; The initial stimulation of testosterone may be accompanied by increased aggression or sexual interest. May

	affect androgen-dependant behaviours. See taxon sheets
Effects on sexual physical characteristics	May affect androgen-dependent characteristics causing suppression of physical secondary sexual characteristics. See taxon sheets
General:	
Side effects	In general weight gain as would be seen with ovariectomy or castration. Increased appetite will result in weight gain, especially in females. Males may lose muscle and overall weight if not replaced by fat. Males may become the size (weight) of females. EGZAC recommends always reading the manufacturer's data sheet
Warnings	Duration may be reduced if implant is broken. Do not cut the implant. GnRH agonists may not to be effective in male bovids, wild dogs or marsupials.

Reporting Requirements: In order to increase our knowledge of the efficacy of contraception methods it is recommended that all individuals on contraception be reported to EGZAC

References:

- 1) <http://www.stlzoo.org/downloads/Deslorelin.pdf>
- 2)
- 3)
- 4)
- 5)
- 6)
- 7)
- 8)

Disclaimer: EGZAC endeavours to provide correct and current information on contraception from various sources. As these are prescription only medicines it is the responsibility of the veterinarian to determine the dosage and best treatment for an individual animal under their care. EGZAC can therefore not be held liable for any injury, damage or contraception failure in an animal.