Anti- gestagens

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Commercial Name:	Alizin®; RU 486
Contraceptive Product:	Aglepristone (Alizin); Mifepristone (RU 486)
Product Category:	Anti-gestagens/synthetic progesterone antagonists.
Product Availability:	Alizin is widely available through veterinary drug distributors. Mifepristone is for human use only. In exceptional cases it might be provided and applied via the IZW Berlin.
Restrictions and/or permit required by Importing Country:	Alizin is widely available through veterinary drug distributors in Europe.
Mechanism of action:	Anti- gestagens bind to the uterine progesterone receptor and inhibit the action of progesterone on endometrium. During early pregnancy implantation of embryo is prevented; at advance stages of pregnancy they can cause abortion.
Product information	Products used to prevent implantation/ nidation in female bear species. For application in other species, please contact EGZAC at contraception@chesterzoo.org.
Delivery Route and dose:	Alizin: two vaccinations of 0.33 ml/kg or 10-15 mg/kg body weight injected subcutaneously under anaesthesia or trained behaviour 24hrs APART. No more than 5 ml per injection site recommended. **Gloves must be worn when administering anti-gestagens.** Note that in African wild dog and lionesses, a SINGLE dose of Alizin was sufficient to produce abortion/ prevent implantation[7]
Females	
Latency to effectiveness:	Abortion will take place 3-7 days after treatment, depending on the species. Please see reference 7 for more information.
Oestrous cycles during contraceptive treatment:	In dogs an early return to oestrus is frequently observed and the time between oestrus shortened by 1-3 months. Felids will rapidly return to oestrus too and plans to contracept should be made about 1-3 weeks after the use of Alizin.[7]
Managing of initial stimulation phase:	N/A
Use during pregnancy:	Anti-gestagens are abortive when used during pregnancy.
Use during lactation:	N/A

Use in prepubertals or juveniles:	N/A
Use in seasonal breeders:	Application in Brown bears must be shortly before implantation of the embryo: end of October until the beginning of November in the Northern hemisphere. In other bear species application time must be determined.
Duration	7 days, prevention of embryo nidation
Reversibility	Alizin: in dogs an early return to oestrus is frequently observed and the time between oestrus shortened by 1-3 months. After treatment bears return to normal cycle and fertility in the next season.
Effects on Behaviour	Data deficient
Effects on sexual physical characteristics	Data deficient
Males	
Latency to effectiveness:	N/A
Use in prepubertals or juveniles:	N/A
Use in seasonal breeders:	N/A
Duration:	N/A
Reversibility	N/A
Effects on Behaviour	N/A
Effects on sexual physical characteristics	N/A
General:	
Side effects	Alizin: Field trials in dogs have shown cases of anorexia (25 %), excitation (23 %), depression (21 %), vomiting (2 %) and diarrhoea (13 %). Local inflammatory reaction may occur at the site of injection of Alizin. No side effects in bears were documented. **EGZAC recommends always reading the manufacturer's data sheet**
Warnings	Accidental injection may be a particular hazard to women who are pregnant, intending to become pregnant or whose pregnancy status is unknown. Women of child-bearing age should avoid contact with the veterinary medicinal product or wear disposable plastic gloves when administering the veterinary medicinal product.

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) Göritz, F., Quest, M., Hildebrandt, T.B., Meyer, H.H.D., Kolter L., Jewgenow, K. (2001): Antiprogestins - a new approach to control reproduction in captive bears. Reprod. Fertil. Suppl. 57, 249-254.

2) Jewgenow K, Quest M, Elger W, Hildebrandt TB, Meyer HHD, Strauss G, Göritz F (2001): Administration of antiprogestin J956 for contraception in bear – a pharmacological study. Theriogenology, 56(4):601-11.

3) García Mitacek MC, Stornelli MC, Praderio R, Stornelli MA, de la Sota RL.Efficacy of cloprostenol or aglepristone at 21-22 and 35-38 days of gestation for pregnancy termination in queens.Reprod Domest Anim. 2012 Dec;47 Suppl 6:200-3. doi: 10.1111/rda.12023.

4) Goericke-Pesch S, Georgiev P, Wehrend A. Prevention of pregnancy in cats using aglepristone on days 5 and 6 after mating. Theriogenology. 2010 Jul 15;74(2):304-10. doi: 10.1016/j.theriogenology.2010.02.014. Epub 2010 May 8.

5) Fontbonne A, Fontaine E, Lévy X, Bachellerie R, Bernex F, Atam-Kassigadou S, Guffroy M, Leblond E, Briant E. Induction of parturition with aglepristone in various sized bitches of different breeds. Reprod Domest Anim. 2009 Jul;44 Suppl 2:170-3. doi: 10.1111/j.1439-0531.2009.01377.x.

6)http://www.noahcompendium.co.uk/Virbac_Limited/Alizin_30mg_mL_solution_for_injection/-57089.html

7) Bertschinger, HJ, Caldwell, P. (2016) Fertility suppression of some wildlife species in Southern Africa – a review. *Reproduction in Domestic Animals*, Suppl. 1; pp. 18-24.