SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Enzaprost 5 mg/ml Solution for injection for cattle and pig

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml contains:

Active substance:
Dinoprost (as trometamol) .....5 mg

Excipients:
Benzyl alcohol (E1519) ..... 16.5 mg

For the full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Solution for injection.
Clear colourless solution.

4. CLINICAL PARTICULARS

4.1 Target species

Cattle: cows, heifers.
Pigs: sows, gilts.

4.2 Indications for use, specifying the target species

The product is indicated for its luteolytic effects in cattle and pigs.

Cattle
The luteolytic effect of the product can be exerted in the following therapeutic uses:
1. Oestrus synchronisation.
2. Treatment of sub-oestrus or silent heat in cows which have a functional corpus luteum, but do not express behavioural oestrus.
3. Induction of abortion until day 120 of pregnancy.
4. Induction of parturition.
5. As an aid in the treatment of chronic metritis or pyometra where there is a functional or persistant corpus luteum.

Pigs
1. Induction of parturition from day 111 of pregnancy.
2. Post partum use: reduction of the weaning to oestrus interval (WOI) and the weaning to fertile service interval (WFSI) in sows with puerperal problems such as metritis in herds with reproductive problems.

4.3 Contraindications

Do not treat animals if they suffer from either acute or subacute disorders of the vascular system, gastro-intestinal tract or respiratory system.
Do not administer to pregnant animals, unless it is desirable to induce parturition or interruption of pregnancy.
Do not use in cases of known hypersensitivity to the active substance or to any of the excipients.

4.4 Special warnings for each target species

The product is ineffective when administered prior to day 5 after ovulation.

4.5 Special precautions for use

Special precautions for use in animals
Localised post injection bacterial infections that may become generalised have been reported. Aggressive antibiotic therapy, particularly covering clostridial species, should be employed at the first sign of infection. Careful aseptic techniques should be employed to decrease the possibility of post injection bacterial infections.
Do not administer by intravenous route.
Induction of abortion or parturition by using exogenous substances may increase the risk for dystocia, fetal mortality, retention of the placenta and/or metritis.

Special precautions to be taken by the person administering the veterinary medicinal product to animals
Prostaglandins of the PGF2α type can be absorbed through the skin and may cause bronchospasm or miscarriage.
Care should be taken when handling the product to avoid self-injection or skin contact.
Accidental spillage on the skin, or accidental eye contact should be washed off immediately with clean water.
Impervious gloves should be worn to avoid skin contact.
Accidental injection may be a particular hazard to women who are pregnant, intending to become pregnant, or whose pregnancy status is unknown and to asthmatics and persons with bronchial or other respiratory problems.
Asthmatics and persons with bronchial or other respiratory problems should handle the product with care to avoid accidental self-injection and skin contact.
Pregnant women, women of child-bearing age, asthmatics and persons with bronchial and other respiratory problems should not use the product or should wear disposable plastic gloves

4.6 Adverse reactions (frequency and seriousness)

Cattle
Increased rectal temperature (hyperthermia) has been reported very rarely.
However, rectal temperature changes have been transient in all cases observed and have not been detrimental to the animal. Limited salivation has been seen in some instances.
The side-effects disappear within one hour after the administration of PGF2α.
In cattle, if used for induction of parturition, retained foetal membranes may occur more frequently, depending on the time of use of the product.

Pigs
Transient side-effects consisting of increased body temperature, signs of pain at the site of injection increased respiratory rate, increased salivation, stimulation of defecation and urination, flushing of skin, dyspnea, slight ataxia, abdominal muscle spasms and vomiting occur occasionally following the administration of dinoprost in pregnant sows and gilts. These effects tend to parallel the signs exhibited by sows prior to normal parturition, only they appear to be condensed in time. These effects are usually seen within 10 minutes of injection and disappear within 3 hours.
Nest building is a common behaviour 5 to 10 minutes after the administration of prostaglandin in sows that are housed in pen or pasture.
In very rare occasions , anaphylactic-type reactions, hyperactivity (restlessness – arching of back, pawing, and rubbing and gnawing the crate) and pruritus have been reported.

The frequency of adverse reactions is defined using the following convention:
- very common (more than 1 in 10 animals treated displaying adverse reactions)
- common (more than 1 but less than 10 animals in 100 animals treated)
- uncommon (more than 1 but less than 10 animals in 1,000 animals treated)
- rare (more than 1 but less than 10 animals in 10,000 animals treated)
- very rare (less than 1 animal in 10,000 animals treated, including isolated reports).

4.7 Use during pregnancy, lactation or lay

Pregnancy status should be determined prior to injection since Dinoprost has been demonstrated to result in abortion or parturition induction when administered at sufficiently high doses in many animal species.
If pregnant, the unlikely possibility of uterine rupture should be borne in mind, especially if cervical dilation does not occur.
Induction of parturition in pigs earlier than 72 hours prior to predicted farrowing date may result in reduced piglet viability.

4.8 Interaction with other medicinal products and other forms of interaction

As non-steroidal anti-inflammatory drugs may inhibit the endogenous prostaglandin synthesis, concomitant administration of these compounds with the product may decrease the luteolytic effects.
As oxytocics stimulate the production of prostaglandins, concomitant administration of these compounds with the product, may exacerbate the luteolytic effects.

4.9 Amounts to be administered and administration route

Intramuscular use.
Full aseptic precautions should be taken. Use a sterile syringe and needle and make the injection through an area of clean skin. Care should be taken to avoid injection through wet or dirty areas of skin.

Cattle
1. Oestrus synchronisation:
One administration of 25 mg of dinoprost (as trometamol), ie 5 ml of the product per animal, to be repeated, if necessary after 11 (10 to 12) days.
Animals treated during dioestrus will normally return to oestrus and ovulate within two to four days after treatment.
Animals treated with the product may be bred by natural service, artificial insemination on detected oestrus or at fixed time insemination (72 and 96 hours after the second injection is usually recommended).

2. Treatment of sub-oestrus or silent heat in cows which have a functional corpus luteum, but do not express behavioural oestrus:
One administration of 25 mg of dinoprost (as trometamol), ie 5 ml of the product per animal, to be repeated, if necessary after 11 (10 to 12) days.

3. Induction of abortion until day 120 of pregnancy:
One administration of 25 mg of dinoprost (as trometamol), ie 5 ml of the product per animal.
The product may be used to terminate pregnancy in cattle until day 120 of pregnancy through its luteolytic effect.

4. Induction of parturition:
One administration of 25 mg of dinoprost (as trometamol), ie 5 ml of the product per animal on or after day 270 of gestation.
The interval from administration to parturition is one to eight days (average three days).

5. For the aid in the treatment of chronic metritis or pyometra where there is a functional or persistent corpus luteum:
One administration of 25 mg of dinoprost (as trometamol), ie 5 ml of the product per animal, to be repeated, if necessary after 11 (10 to 12) days.

Pigs
To avoid excessive broaching of the stopper when treating large numbers of animals using the 50 ml pack size, the use of a multiple dose syringe with a draw-off needle is recommended.

1. Induction of parturition from day 111 of pregnancy:
One administration of 10 mg of dinoprost (as trometamol), ie 2 ml of the product per animal within 3 days of expected parturition.
Response to treatment by individual animals varies within a range of 24-36 hours from administration to parturition. This can be used to control the time of farrowing in sows and gilts in late gestation. Treatment earlier than 3 days prior to predicted farrowing date may induce weak piglets.

2. Post-partum use:
One administration of 10 mg of dinoprost (as trometamol), ie 2 ml of the product per animal 24 to 36 hours after parturition.

4.10 Overdose (symptoms, emergency procedures, antidotes), if necessary

Increased rectal temperature and a slight transitory increase in heart rate can be observed at 5 or 10 times the recommended dosage in cows and heifers.

4.11 Withdrawal period(s)

Cattle:
Meat and offal: 2 days
Milk: Zero hours

Pigs:
Meat and offal: 2 days

5. PHARMACOLOGICAL PROPERTIES

Pharmacotherapeutic group: prostaglandins, ATC vet code: QG02AD01.

5.1 Pharmacodynamic properties

Dinoprost (as trometamol) has a luteolytic activity and provokes the involution of the corpus luteum in most mammalian species and the appearance of oestrus and ovulation in females having a cyclic sexual activity.
Administration of Dinoprost provokes abortion or parturition in bovine and porcine species.
Moreover, it has other activities, which vary according to the different species such as increase of blood pressure and bronchial constriction. Dinoprost is also a stimulant of smooth muscle fibres.

5.2 Pharmacokinetic particulars

In all the species, dinoprost (or PGF2 α) is rapidly absorbed from the injection site.
The maximum concentrations (Cmax) in plasma of 13,14-dihydro-15-keto-prostaglandin F2alpha (PGFM), the major metabolite of PGF2 α, are around 15 µg/L for bovine and 382 µg/L for porcine and are obtained after 19 min for bovine and after 10 min for porcine.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Benzyl alcohol (E1519)
Sodium hydroxide (E524) (for pH adjustment)
Water for injections

6.2 Major incompatibilities

In absence of compatibility studies do not mix with other veterinary medicinal products.

6.3 Shelf life

Shelf-life of the veterinary medicinal product as packaged for sale in 5 ml vials: 2 years.
Shelf-life of the veterinary medicinal product as packaged for sale in 10, 30 or 50 ml vials: 3 years.
Shelf-life after first broaching the vial: 14 days

6.4 Special precautions for storage

This veterinary medicinal product does not require any special storage conditions.
After first broaching the vial, do not store above 25 °C.

6.5 Nature and composition of immediate packaging

Material of the primary packaging:
Type I colourless glass vials
Red chlorobutyl rubber stoppers
Aluminium overseals

Pack sizes:
Carboard box of 10 vials of 5 ml
Cardboard box of 5 vials of 10 ml
Cardboard box of 1 vial of 30 ml
Cardboard box of 1 vial of 50 ml

Not all pack sizes may be marketed.

6.6 Special precautions for the disposal of unused veterinary medicinal products or waste materials derived from the use of such products

Any unused veterinary medicinal product or waste materials derived from such veterinary medicinal product should be disposed of in accordance with local requirements.

7. MARKETING AUTHORISATION HOLDER

Ceva Animal Health Ltd
Explorer House
Mercury Park
Wycombe Lane
Wooburn Green
High Wycombe
Buckinghamshire
HP10 0HH
United Kingdom

8. MARKETING AUTHORISATION NUMBER

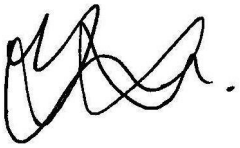
Vm 15052/4015

9. DATE OF FIRST AUTHORISATION

08 January 2001

10. DATE OF REVISION OF THE TEXT

September 2022



Approved: 22 September 2022