

## SUMMARY OF PRODUCT CHARACTERISTICS

### 1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Gonavet Veyx 50 µg/ml solution for injection for cattle, pigs and horses (DE, AT, BE, BG, CZ, EL, ES, FR, HU, HR, IS, IT, LT, LU, LV, NL, PT, RO, SI, SK)

Gonavet Veyx 50 micrograms/ml solution for injection for cattle, pigs and horses (IE/UK/EE)

Gonavet Veyx Depherelin 50 micrograms/ml solution for injection for cattle, pigs and horses (PL)

### 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

1.0 ml contains:

#### Active substance:

Gonadorelin[6-D-Phe] 50 micrograms (equivalent to 52.4 micrograms Gonadorelin[6-D-Phe] acetate)

#### Excipients:

Chlorocresol 1 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), horses (mares)

#### 4.2 Indications for use, specifying the target species

Control and stimulation of reproduction in cattle and pigs. Treatment of ovarian-related fertility disorders or dysfunctions in cattle and horses.

##### Cattle (cows, heifers):

- Ovulation induction in case of delayed ovulation due to LH-deficiency
- Induction/synchronization of ovulation within the framework of systems for timed inseminations
- Stimulation of the ovaries during the puerperal period from day 12 post partum
- Ovarian cysts (due to LH-deficiency)

##### Pigs (sows, gilts):

- Induction/synchronization of ovulation within the framework of systems for timed insemination and parturition synchronization

##### Horses (mares):

- Ayclia and anoestrus due to LH-deficiency

#### 4.3 Contraindications

Do not use in cows with a mature tertiary follicle ready to ovulate.

Do not use during infectious diseases and other relevant health disorders.

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

To maximise conception rates of cows to be treated with GnRH-PGF<sub>2α</sub> based synchronization protocols, the ovarian status should be determined and regular cyclic ovarian activity confirmed. Optimal results will be achieved in healthy normally cycling cows.

#### 4.5 Special precautions for use

##### Special precautions for use in animals

None.

##### Special precautions to be taken by the person administering the veterinary medicinal product to animals

Administration should be performed with caution in order to avoid accidental self-injection. In case of accidental self-injection, seek medical advice immediately and show the package leaflet or the label to the physician. As GnRH analogues can be absorbed through the skin, accidental spillage onto skin or into the eyes should be thoroughly rinsed off with water. The veterinary medicinal product should not be administered by pregnant women. Women of child-bearing potential should administer the product with caution. People with known hypersensitivity to GnRH should avoid contact with the veterinary medicinal product.

#### 4.6 Adverse reactions (frequency and seriousness)

None known.

#### 4.7 Use during pregnancy, lactation or lay

##### Pregnancy:

Not applicable.

##### Lactation:

Can be used during lactation.

#### 4.8 Interaction with other medicinal products and other forms of interaction

A synergistic effect occurs in case of combined administration with FSH, especially in case of a disturbed puerperal course. Simultaneous use of human or equine chorionic gonadotropin may lead to ovarian over-stimulation.

#### 4.9 Amounts to be administered and administration route

For intramuscular or subcutaneous injection. For intramuscular use, preferably in the neck region. The product is intended for single administration except when used as part of the “Ovsynch” timed artificial insemination protocol. Dosage in ml product and micrograms Gonadorelin[6-D-Phe] per animal.

<u>Cattle (cows and heifers)</u> by intramuscular injection: (corresponding to 50 – 100 micrograms of Gonadorelin[6-D-Phe])	1.0 - 2.0 ml
- Ovulation induction in case of delayed ovulation due to LH-deficiency	2.0 ml
- Induction/synchronization of ovulation within the framework of systems for timed inseminations	1.0 - 2.0 ml
- Stimulation of the ovaries during the puerperal period from day 12 post partum	1.0 ml
- Ovarian cysts (due to LH-deficiency)	2.0 ml

<u>Pigs (sows and gilts)</u> by intramuscular or subcutaneous injection: (corresponding to 25 – 75 micrograms of Gonadorelin[6-D-Phe])	0.5 - 1.5 ml
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- Induction/synchronization of ovulation within the framework of systems for timed inseminations and parturition synchronization

Sows: 0.5 - 1.0 ml

Gilts: 1.0 - 1.5 ml

Horses (mares) by intramuscular injection: 2.0 ml  
(corresponding to 100 micrograms of Gonadorelin[6-D-Phe])

The rubber stopper of the vial may be safely punctured up to 25 times. Otherwise, automatic syringe equipment, or a suitable draw-off needle, should be used for the 20 ml and 50 ml vials to avoid excessive puncturing of the closure.

### **Special information**

Cattle:

For oestrus and ovulation synchronization and timed artificial insemination (AI) in cattle the so called “Ovsynch-procedure” was developed, which consists of the combined use of GnRH and PGF<sub>2α</sub>. The following timed AI protocol has been commonly reported in the literature:

Day 0:	Inject 100 micrograms of Gonadorelin[6-D-Phe] per animal (2 ml of the product)
Day 7:	Inject PGF <sub>2α</sub> or analogue (luteolytic dose)
Day 9:	Inject 100 micrograms of Gonadorelin[6-D-Phe] per animal (2 ml of the product)
AI:	16 – 20 hours later, or at observed oestrus if sooner

The Ovsynch-procedure may not be as efficacious in heifers as in cows.

Pigs:

The ovulation synchronization system includes the administration of Peforelin or PMSG after the end of oestrus synchronisation with Altrenogest in gilts or after the weaning in adult sows and two timed artificial inseminations. In adult sows the time table depends on the duration of the suckling period. The following procedures are recommended:

	Gilts*	Adult sows**
Induction of oestrus	<b>Peforelin</b> 48 h or <b>PMSG (eCG)</b> 24 h - 48 h after last application of Altrenogest	<b>Peforelin</b> or <b>PMSG</b> application 24 h after weaning
Synchronization of ovulation	<b>Gonadorelin[6-D-Phe]</b> 78 - 80 h after Peforelin or PMSG application	<i>Suckling period &gt; 4 weeks:</i> <b>Gonadorelin[6-D-Phe]</b> 56 - 58 h after Peforelin or PMSG application  <i>Suckling period 4 weeks:</i> <b>Gonadorelin[6-D-Phe]</b> 72 h after Peforelin or PMSG application  <i>Suckling period 3 weeks:</i> <b>Gonadorelin[6-D-Phe]</b> 78 - 80 h after Peforelin or PMSG application
1 <sup>st</sup> AI	24 - 26 h after Gonadorelin[6-D-Phe] application	24 - 26 h after Gonadorelin[6-D-Phe] application
2 <sup>nd</sup> AI	40 - 42 h after Gonadorelin[6-D-Phe] application	40 - 42 h after Gonadorelin[6-D-Phe] application

\* The preferred dose of Gonavet Veyx in gilts is 50 micrograms Gonadorelin[6-D-Phe]. However, the dose may be adjusted within the range of 50 - 75 micrograms to take into account farm-specific aspects or seasonal influences. The proposed time table should be strictly kept.

\*\* The preferred dose of Gonavet Veyx in adult sows is 50 micrograms Gonadorelin[6-D-Phe]. However, the administration of 25 micrograms is also sufficient in case of sows with sow parity of more than 3 or during the mating period of September until May. The proposed time table should be strictly kept.

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

None known.

#### **4.11 Withdrawal period(s)**

Cattle, pigs, horses	Meat and offal:	Zero days
Cattle, horses	Milk:	Zero hours

### **5. PHARMACOLOGICAL PROPERTIES**

Pharmacotherapeutic group: Systemic hormonal preparations, excl. sex hormone and insulin.

ATCvet code: QH01CA01 (Gonadorelin)

#### **5.1 Pharmacodynamic properties**

Gonadorelin[6-D-Phe] is an agonist of the natural gonadotropin releasing hormone (GnRH) formed in the hypothalamus that is excreted in a pulsatile manner into the pituitary portal vein circulation and controls the synthesis of the follicle stimulating hormone (FSH) and luteinising hormone (LH) in the gonadotropic cells of the anterior pituitary gland as well as LH secretion. The pulse frequency and amplitude of the GnRH excretion are dependent on the stage of the cycle. Along with FSH, LH stimulates the release of estrogens from maturing follicles in the ovaries and induces ovulation in the female organism.

Gonadorelin[6-D-Phe] acetate has the same effect as endogenous GnRH: the LH peak in the spontaneous cycle is imitated and causes follicular maturation and ovulation or stimulates a new follicle maturation wave.

With high dosage repeated or continuous application of an agonist, the gonadotropic cells in the pituitary become temporarily refractory.

#### **5.2 Pharmacokinetic particulars**

Following parenteral administration, GnRH and its analogues are absorbed rapidly and are distributed and eliminated from the organism following one-compartment-model kinetics. The plasma half-life is a few minutes (natural GnRH) up to 2 hours. The biological half-life of the natural, as well as the synthetic agonists, is short. Break-down occurs by enzymes in the form of peptidases and the excretion is primarily renal. The degradation products have no hormonal activity.

Gonadorelin[6-D-Phe] is a linear decapeptide that can only be differentiated using the difference in the amino acid at position 6 of GnRH: instead of glycine in GnRH the agonist contains D-phenylalanine. This modification leads to a higher resistance against the catabolising enzymes.

### **6. PHARMACEUTICAL PARTICULARS**

#### **6.1 List of excipients**

Chlorocresol  
Sodium hydroxide (for pH adjustment)  
Acetic acid, glacial (for pH adjustment)  
Water for injections

## **6.2 Major incompatibilities**

In the absence of compatibility studies, this veterinary medicinal product must not be mixed with other veterinary medicinal products.

## **6.3 Shelf life**

Shelf life of the veterinary medicinal product as packaged for sale:

2 years

Shelf life after first opening of the immediate packaging:

28 days

## **6.4. Special precautions for storage**

Store in a refrigerator (2 °C - 8 °C). Keep the vial in the outer carton in order to protect from light. Do not store above 25 °C after opening.

## **6.5 Nature and composition of immediate packaging**

Vial of colourless glass, type I, with a fluorinated bromobutyl stopper and an aluminium cap;

1 vial (10 ml) in a cardboard box.

1 vial (20 ml) in a cardboard box.

1 vial (50 ml) in a cardboard box.

Not all pack sizes may be marketed.

## **6.6 Special precautions for the disposal of unused veterinary medicinal product 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**

Veyx-Pharma GmbH  
Söhreweg 6  
34639 Schwarzenborn  
Germany

## **8. MARKETING AUTHORISATION NUMBER(S)**

## **9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION**

<Date of first authorisation:> <{DD/MM/YYYY}><{DD month YYYY}>.>

<Date of last renewal:> <{DD/MM/YYYY}> <{DD month YYYY}>.>

## **10 DATE OF REVISION OF THE TEXT**

### **PROHIBITION OF SALE, SUPPLY AND/OR USE**

Not applicable