

**ANNEX I**  
**SUMMARY OF PRODUCT CHARACTERISTICS**

## 1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Dormostop 5 mg/ml solution for injection for dogs and cats (AT, BE, BG, CY, CZ, DE, EL, ES, HR, HU, IE, IT, LV, LT, LU, NL, PL, PT, RO, SI, SK, UK(NI))  
Dormostop solution for injection for dogs and cats (FR)  
Dormostop Vet (DK, FI, IS, NO, SE)  
Dormostop (EE)

## 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml contains:

### Active substance:

Atipamezole 4.27 mg  
(equivalent to 5.0 mg atipamezole hydrochloride)

### Excipients:

Qualitative composition of excipients and other constituents	Quantitative composition if that information is essential for proper administration of the veterinary medicinal product
Methyl parahydroxybenzoate (E218)	1.0 mg
Sodium chloride	
Hydrochloric acid, diluted (for pH-adjustment)	
Sodium hydroxide (for pH-adjustment)	
Water for injections	

Clear colourless, practically free from particles solution.

## 3. CLINICAL INFORMATION

### 3.1 Target species

Dog, cat

### 3.2 Indications for use for each target species

Reversal of the sedative effects of medetomidine and dexmedetomidine.

### 3.3 Contraindications

Do not use in cases of hypersensitivity to the active substance or to any of the excipients.  
Do not use in animals suffering from hepatic or renal diseases.

### 3.4 Special warnings

None.

### 3.5 Special precautions for use

#### Special precautions for safe use in the target species

After administration of the veterinary medicinal product, the animals should be allowed to rest in a quiet place.

Atipamezole reverses all effects of (dex)medetomidine, thus the sedative, analgesic and cardiovascular effects which may lead to a transient increase in heart rate.

If sedatives other than (dex)medetomidine are given, it must be kept in mind that the effects of those other agents may persist after reversal of (dex)medetomidine.

Atipamezole does not reverse the effect of ketamine, which may cause seizures in dogs and elicit cramps in cats when used alone. Do not administer atipamezole within 30 – 40 minutes of prior administration of ketamine.

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

The veterinary medicinal product may cause irritation to the skin, eyes and mucous membranes. Dermal and ocular exposure should therefore be avoided. In case of accidental dermal or ocular exposure, rinse the skin and/or the eye with water. Seek medical attention if irritation persists, and show the package leaflet to the physician.

This veterinary medicinal product may cause adrenergic effects. Care should be taken to avoid self-injection. In case of accidental self-injection, seek medical advice immediately and show the package leaflet to the physician.

#### Special precautions for the protection of the environment

Not applicable.

### 3.6 Adverse events

Dogs and cats:

Rare (1 to 10 animals / 10,000 animals treated):	Hyperactivity. Tachycardia, arrhythmias. Increased salivation, vomiting, diarrhoea, involuntary defecation. Atypical vocalisation. Muscle tremor. Increased respiratory rate. Uncontrolled micturition.
Very rare (<1 animal / 10,000 animals treated, including isolated reports):	Sedation <sup>1</sup>
Undetermined (frequency cannot be estimated from the available data)	Hypotension <sup>2</sup>

<sup>1</sup> Recurrence of sedation may occur or the recovery time may not be shortened.

<sup>2</sup> Transient, during the first 10 minutes post injection of atipamezole hydrochloride

Reporting adverse events is important. It allows continuous safety monitoring of a veterinary medicinal product. Reports should be sent, preferably via a veterinarian, to either the marketing authorisation holder or its local representative or the national competent authority via the national reporting system. See the package leaflet for respective contact details.

### 3.7 Use during pregnancy, lactation and lay

#### Pregnancy and lactation:

The safety of the veterinary medicinal product has not been established during pregnancy and lactation. The use is not recommended during pregnancy and lactation.

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

A simultaneous administration of atipamezole with other centrally acting medicinal products as diazepam, acepromazine or opiates is not recommended.

### 3.9 Administration routes and dosage

For single intramuscular use.

Atipamezole hydrochloride is administered 15-60 min after medetomidine or dexmedetomidine hydrochloride administration.

Dogs: the intramuscular atipamezole hydrochloride dose [in µg] is five times that of the previous medetomidine hydrochloride dose or ten times that of the dexmedetomidine hydrochloride dose. Due to the 5-fold higher concentration of the active ingredient (atipamezole hydrochloride) in this veterinary medicinal product compared to that of veterinary medicinal products containing 1 mg medetomidine hydrochloride per ml and the 10-fold higher concentration compared to that of veterinary medicinal products containing 0.5 mg dexmedetomidine

hydrochloride, an equal volume of each veterinary medicinal product is required.

The concentration of atipamezole hydrochloride in the veterinary medicinal product being 50-fold higher compared to that of veterinary medicinal products containing 0.1 mg/ml dexmedetomidine hydrochloride, the volume of the veterinary medicinal product that is required is 5-fold lower than of the solution of dexmedetomidine hydrochloride.

Dosage example dogs:

Dose Medetomidine HCl 1 mg/ml	Dose Dexmedetomidine HCl 0.5 mg/ml	Dose Dexmedetomidine HCl 0.1 mg/ml	Dose Atipamezole HCl 5 mg/ml
40 µg/kg	20 µg/kg	20 µg/kg	200 µg/kg
= 0.04 ml/kg	= 0.04 ml/kg	= 0.2 ml/kg	= 0.04 ml/kg

Cats: the intramuscular atipamezole hydrochloride dose [in µg] is two-and-a-half times that of the previous medetomidine hydrochloride dose or five times that of the dexmedetomidine hydrochloride dose. Due to the 5-fold higher concentration of the active ingredient (atipamezole hydrochloride) in this veterinary medicinal product compared to that of veterinary medicinal products containing 1 mg medetomidine hydrochloride per ml and the 10-fold higher concentration compared to that of veterinary medicinal products containing 0.5 mg dexmedetomidine hydrochloride, half the volume of the veterinary medicinal product to that of the previously administered medetomidine or dexmedetomidine should be given.

The concentration of atipamezole hydrochloride in the veterinary medicinal product being 50-fold higher compared to that of veterinary medicinal products containing 0.1 mg/ml dexmedetomidine hydrochloride, the volume of the veterinary medicinal product that is required is 10-fold lower than of the solution of dexmedetomidine hydrochloride.

Dosage example cats:

Dose Medetomidine HCl 1 mg/ml	Dose Dexmedetomidine HCl 0.5 mg/ml	Dose Dexmedetomidine HCl 0.1 mg/ml	Dose Atipamezole HCl 5 mg/ml
80 µg/kg	40 µg/kg	40 µg/kg	200 µg/kg
= 0.08 ml/kg	= 0.08 ml/kg	= 0.4 ml/kg	= 0.04 ml/kg

The recovery time is shortened to approximately 5 minutes. The animals become mobile after approximately 10 minutes after administration of the veterinary medicinal product.

Do not exceed a maximum of 1 ml per injection site. The dose to be administered should preferably be divided over 2 injection sites.

The stoppers should not be broached more than 30 times.

### **3.10 Symptoms of overdose (and where applicable, emergency procedures and antidotes)**

Overdose of atipamezole hydrochloride may result in transient tachycardia and over-alertness (hyperactivity, muscle tremor). If necessary, these symptoms may be reversed by a (dex)medetomidine hydrochloride dose which is lower than the usually used clinical dose. If atipamezole hydrochloride is inadvertently administered to an animal not previously treated with (dex)medetomidine hydrochloride, hyperactivity and muscle tremor may occur. These effects may persist for about 15 minutes. Over-alertness in the cat is best handled by minimising external stimuli.

### **3.11 Special restrictions for use and special conditions for use, including restrictions on the use of antimicrobial and antiparasitic veterinary medicinal products in order to limit the risk of development of resistance**

### **3.12 Withdrawal period(s)**

Not applicable.

## **4. PHARMACOLOGICAL INFORMATION**

### **4.1 ATC vet code: QV03AB90**

### **4.2 Pharmacodynamics**

Atipamezole is a potent and selective  $\alpha_2$ -receptor blocking agent ( $\alpha_2$ -antagonist), which promotes the release of the neurotransmitter noradrenaline in the central as well as in the peripheral nervous systems. This leads to activation of the central nervous system due to sympathetic activation. Other pharmacodynamic effects on, for example, the cardiovascular system are only mild. As a  $\alpha_2$ -antagonist, atipamezole is capable of eliminating (or inhibiting) the effects of the  $\alpha_2$ -receptor agonist, medetomidine or dexmedetomidine.

### **4.3 Pharmacokinetics**

Atipamezole hydrochloride is rapidly absorbed after intramuscular injection. The maximal concentration in the central nervous system is reached in 10-15 minutes. Volume of distribution (Vd) is about 1 – 2.5 l/kg. The half-life ( $t_{1/2}$ ) of atipamezole hydrochloride is reported to be approximately 1 hour. Atipamezole hydrochloride is rapidly and completely metabolised. The metabolites are mainly excreted in urine and in a small amount in faeces.

## **5. PHARMACEUTICAL PARTICULARS**

### **5.1 Major incompatibilities**

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

## **5.2 Shelf life**

Shelf life of the veterinary medicinal product as packaged for sale: 30 months  
Shelf life after first opening the immediate packaging: 28 days

## **5.3 Special precautions for storage**

This veterinary medicinal product does not require any special storage conditions.

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

Cardboard box with type I clear glass vial of 10 ml or 20 ml with coated bromobutyl rubber stopper and aluminium cap.

Pack sizes:

5 ml (in a 10 ml sized vial)  
10 ml  
20 ml

Not all pack sizes may be marketed.

## **5.5 Special precautions for the disposal of unused veterinary medicinal product or waste materials derived from the use of such products**

Medicines should not be disposed of via wastewater or household waste.

Use take-back schemes for the disposal of any unused veterinary medicinal product or waste materials derived thereof in accordance with local requirements and with any national collection systems applicable to the veterinary medicinal product concerned.

## **6. NAME OF THE MARKETING AUTHORISATION HOLDER**

Alfasan Nederland B.V.

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

## **8. DATE OF FIRST AUTHORISATION**

Date of first authorisation:

## **9. DATE OF THE LAST REVISION OF THE SUMMARY OF THE PRODUCT CHARACTERISTICS**

## **10. CLASSIFICATION OF VETERINARY MEDICINAL PRODUCTS**

Veterinary medicinal product subject to prescription.

Detailed information on this veterinary medicinal product is available in the Union Product Database. (<https://medicines.health.europa.eu/veterinary>)

**ANNEX III**  
**LABELLING AND PACKAGE LEAFLET**

## **A. LABELLING**

**PARTICULARS TO APPEAR ON THE OUTER PACKAGE**

Carton box

**1. NAME OF THE VETERINARY MEDICINAL PRODUCT**

Dormostop 5 mg/ml solution for injection

**2. STATEMENT OF ACTIVE SUBSTANCES**

Each ml contains:

**Active substance:**

Atipamezole 4.27 mg  
(equivalent to 5.0 mg atipamezole hydrochloride)

**3. PACKAGE SIZE**

5 ml  
10 ml  
20 ml

**4. TARGET SPECIES**

Dogs and cats

**5. INDICATIONS****6. ROUTES OF ADMINISTRATION**

Intramuscular use

**7. WITHDRAWAL PERIODS****8. EXPIRY DATE**

Exp. {mm/yyyy}

Once broached use within 28 days.

**9. SPECIAL STORAGE PRECAUTIONS****10. THE WORDS "READ THE PACKAGE LEAFLET BEFORE USE"**

Read the package leaflet before use.

**11. THE WORDS "FOR ANIMAL TREATMENT ONLY"**

For animal treatment only.

**12. THE WORDS "KEEP OUT OF THE SIGHT AND REACH OF CHILDREN"**

Keep out of the sight and reach of children.

**13. NAME OF THE MARKETING AUTHORISATION HOLDER**

Alfasan Nederland B.V.

**14. MARKETING AUTHORISATION NUMBERS****15. BATCH NUMBER**

Lot {number}

**MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS****Glass vials of 5 mL (in a 10 mL vial)****Glass vials of 10 mL****Glass vials of 20 mL****1. NAME OF THE VETERINARY MEDICINAL PRODUCT**

Dormostop

**2. QUANTITATIVE PARTICULARS OF THE ACTIVE SUBSTANCES**

4.27 mg/ml atipamezole

(equivalent to 5.0 mg atipamezole hydrochloride)

**3. BATCH NUMBER**

Lot {number}

**4. EXPIRY DATE**

Exp. {mm/yyyy}

Once broached use within 28 days.

**B. PACKAGE LEAFLET**

## PACKAGE LEAFLET

### 1. Name of the veterinary medicinal product

Dormostop 5 mg/ml solution for injection for dogs and cats

### 2. Composition

Each ml contains:

#### Active substance:

Atipamezole 4.27 mg  
(equivalent to 5.0 mg atipamezole hydrochloride)

#### Excipients:

Methyl parahydroxybenzoate (E218) 1 mg

Clear colourless, practically free from particles solution

### 3. Target species

Dog, cat

### 4. Indications for use

Reversal of the sedative effects of medetomidine and dexmedetomidine.

### 5. Contraindications

Do not use in cases of hypersensitivity to the active substance or to any of the excipients.

Do not use in animals suffering from hepatic or renal diseases.

### 6. Special warnings

#### Special precautions for safe use in the target species:

After administration of the veterinary medicinal product, the animals should be allowed to rest in a quiet place.

Atipamezole reverses all effects of (dex)medetomidine, thus the sedative, analgesic and cardiovascular effects which may lead to a transient increase in heart rate.

If sedatives other than (dex)medetomidine are given, it must be kept in mind that the effects of those other agents may persist after reversal of (dex)medetomidine.

Atipamezole does not reverse the effect of ketamine, which may cause seizures in dogs and elicit cramps in cats when used alone. Do not administer atipamezole within 30 – 40 minutes of prior administration of ketamine.

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

The veterinary medicinal product may cause irritation to the skin, eyes and mucous membranes. Dermal and ocular exposure should therefore be avoided. In case of accidental dermal or ocular exposure, rinse the skin and/or the eye with water. Seek medical attention if irritation persists, and show the package leaflet to the physician.

This veterinary medicinal product may cause adrenergic effects. Care should be taken to avoid self-injection. In case of accidental self-injection, seek medical advice immediately and show the package leaflet to the physician.

Pregnancy and lactation:

The safety of the veterinary medicinal product has not been established during pregnancy and lactation. The use is not recommended during pregnancy and lactation.

Interaction with other medicinal products and other forms of interaction:

A simultaneous administration of atipamezole with other centrally acting medicinal products as diazepam, acepromazine or opiates is not recommended.

Overdose:

Overdose of atipamezole hydrochloride may result in transient tachycardia and over-alertness (hyperactivity, muscle tremor). If necessary, these symptoms may be reversed by a (dex)medetomidine hydrochloride dose which is lower than the usually used clinical dose. If atipamezole hydrochloride is inadvertently administered to an animal not previously treated with (dex)medetomidine hydrochloride, hyperactivity and muscle tremor may occur. These effects may persist for about 15 minutes.

Over-alertness in the cat is best handled by minimising external stimuli.

Major incompatibilities:

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

## 7. Adverse events

Dogs and cats:

Rare (1 to 10 animals / 10,000 animals treated):	Hyperactivity. Tachycardia, arrhythmias. Increased salivation, vomiting, diarrhoea, involuntary defecation. Atypical vocalisation. Muscle tremor. Increased respiratory rate. Uncontrolled micturition.
Very rare (<1 animal / 10,000 animals treated, including isolated reports):	Sedation <sup>1</sup>
Undetermined (frequency cannot be estimated from the available data)	Hypotension <sup>2</sup>

<sup>1</sup> Recurrence of sedation may occur or the recovery time may not be shortened.

<sup>2</sup> Transient, during the first 10 minutes post injection of atipamezole hydrochloride

Reporting adverse events is important. It allows continuous safety monitoring of a product. If you notice any side effects, even those not already listed in this package leaflet, or you think that the medicine has not worked, please contact, in the first instance, your veterinarian. You can also report any adverse events to the marketing authorisation holder or the local representative of the marketing authorisation holder, using the contact details at the end of this leaflet, or via your national reporting system {national system details}.

## 8. Dosage for each species, routes and method of administration

For single intramuscular use.

Atipamezole hydrochloride is administered 15-60 min after medetomidine or dexmedetomidine hydrochloride administration.

Dogs: the intramuscular atipamezole hydrochloride dose [in µg] is five times that of the previous medetomidine hydrochloride dose or ten times that of the dexmedetomidine hydrochloride dose. Due to the 5-fold higher concentration of the active ingredient (atipamezole hydrochloride) in this veterinary medicinal product compared to that of veterinary medicinal products containing 1 mg medetomidine hydrochloride per ml and the 10-fold higher concentration compared to that of veterinary medicinal products containing 0.5 mg dexmedetomidine hydrochloride, an equal volume of each veterinary medicinal product is required.

The concentration of atipamezole hydrochloride in the veterinary medicinal product being 50-fold higher compared to that of veterinary medicinal products containing 0.1 mg/ml dexmedetomidine hydrochloride, the volume of the veterinary medicinal product that is required is 5-fold lower than of the solution of dexmedetomidine hydrochloride.

Dosage example dogs:

Dose Medetomidine HCl 1 mg/ml	Dose Dexmedetomidine HCl 0.5 mg/ml	Dose Dexmedetomidine HCl 0.1 mg/ml	Dose Atipamezole HCl 5 mg/ml
40 µg/kg	20 µg/kg	20 µg/kg	200 µg/kg
= 0.04 ml/kg	= 0.04 ml/kg	= 0.2 ml/kg	= 0.04 ml/kg

Cats: the intramuscular atipamezole hydrochloride dose [in µg] is two-and-a-half times that of the previous medetomidine hydrochloride dose or five times that of the dexmedetomidine hydrochloride dose. Due to the 5-fold higher concentration of the active ingredient (atipamezole hydrochloride) in this veterinary medicinal product compared to that of veterinary medicinal products containing 1 mg medetomidine hydrochloride per ml and the 10-fold higher concentration compared to that of veterinary medicinal products containing 0.5 mg dexmedetomidine hydrochloride, half the volume of the veterinary medicinal product to that of the previously administered medetomidine or dexmedetomidine should be given.

The concentration of atipamezole hydrochloride in the veterinary medicinal product being 50-fold higher compared to that of veterinary medicinal products containing 0.1 mg/ml dexmedetomidine hydrochloride, the volume of the veterinary medicinal product that is required is 10-fold lower than of the solution of dexmedetomidine hydrochloride.

Dosage example cats:

Dose Medetomidine HCl 1 mg/ml	Dose Dexmedetomidine HCl 0.5 mg/ml	Dose Dexmedetomidine HCl 0.1 mg/ml	Dose Atipamezole HCl 5 mg/ml
80 µg/kg	40 µg/kg	40 µg/kg	200 µg/kg
= 0.08 ml/kg	= 0.08 ml/kg	= 0.4 ml/kg	= 0.04 ml/kg

The recovery time is shortened to approximately 5 minutes. The animals become mobile after approximately 10 minutes after administration of the veterinary medicinal product.

## 9. Advice on correct administration

Do not exceed a maximum of 1 ml per injection site. The dose to be administered should preferably be divided over 2 injection sites.

The stoppers should not be broached more than 30 times.

## **10. Withdrawal periods**

Not applicable.

## **11. Special storage precautions**

This veterinary medicinal product does not require any special storage conditions.

Shelf life after first opening the immediate packaging: 28 days

Keep out of the sight and reach of children.

Do not use this veterinary medicinal product after the expiry date which is stated on the label/carton after Exp. The expiry date refers to the last day of that month.

## **12. Special precautions for disposal**

Medicines should not be disposed of via wastewater <or household waste>.

Use take-back schemes for the disposal of any unused veterinary medicinal product or waste materials derived therefrom in accordance with local requirements and with any national collection systems applicable to the veterinary medicinal product concerned. These measures should help to protect the environment.

Ask your veterinary surgeon or pharmacist how to dispose of medicines no longer required.

## **13. Classification of veterinary medicinal products**

Veterinary medicinal product subject to prescription.

## **14. Marketing authorisation numbers and pack sizes**

Cardboard box with type I clear glass vial of 10 ml or 20 ml with coated bromobutyl rubber stopper and aluminium cap.

Pack sizes:

5 ml (in a 10 ml sized vial)

10 ml

20 ml

Not all pack sizes may be marketed.

## **15. Date on which the package leaflet was last revised**

{DD/MM/YYYY}

Detailed information on this veterinary medicinal product is available in the Union Product Database. (<https://medicines.health.europa.eu/veterinary>).

## **16. Contact details**

Marketing authorisation holder and manufacturer responsible for batch release:

Alfasan Nederland B.V.

Kuipersweg 9

3449 JA Woerden

The Netherlands

Local representatives and contact details to report suspected adverse reactions:

**17. Other information**