

The Risk Is Real and Growing



50% of dog parks tested positive for whipworm, roundworm or hookworm¹



Whipworms are commonly undetected in float tests, allowing them to continue spreading



Pet owners who use heartworm preventives may overlook major intestinal worms

If They're Only Covered for Heartworm, There's a Gap in Their Protection



Tapeworms are more common than expected²

- Underestimated because they're hard to detect
- 96% of Dipylidium caninum infections were missed using passive flotation²
- Any dog can pick up tapeworms from fleas, exposure to rabbits, rodents or even eating offal³



Whipworm infection is difficult to diagnose and eradicate⁴

- Whipworm eggs are dense and do not float well
- 62% were missed using passive flotation⁴
- Infective eggs can remain viable for years



Prior to administration of Interceptor Plus, dogs should be tested for existing heartworm infections.

Interceptor® Plus Covers All 5 Major Worms

ROUNDWORM WHPWORM TAPENORM





Simparica TRIO. (sarolaner, moxidectin, and pyrante chewable tablets)

DO NOT COVER WHIPWORM OR TAPEWORM

Go Beyond Heartworm Protection

See Important Safety Information on page 8.







Caution

Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian.

INTERCEPTOR PLUS is available in four strengths in color-coded packages for oral administration to dogs and puppies according to their weight.

Each chewable flavored tablet is formulated to provide a minimum of 0.23 mg/pound (0.5 mg/kg) of milbemycin oxime and 2.28 mg/pound (5 mg/kg) of praziquantel.

Milbemycin oxime consists of the oxime derivatives of 5-didehydromilbemycins in the ratio of approximately 80% A₄ (C₃₂H₄₅NO₇, MW 555.71) and 20% A₃ (C₃₁H₄₃NO₇, MW 541.68) Milbemycin oxime is classified as a macrocyclic anthelmintic.

Praziquantel is an isoquinolone anthelmintic with the chemical name

2-(Cyclohexylcarbonyl)-1,2,3,6,7,-11b-hexahydro-4H-pyrazino [2,1-a]isoquinolin-4-one.

Indications

INTERCEPTOR PLUS is indicated for the prevention of heartworm disease caused by *Dirofilaria* immitis; and for the treatment and control of adult roundworm (Toxocara canis, Toxascaris leonina), adult hookworm (Ancylostoma caninum), adult whipworm (Trichuris vulpis), and adult tapeworm (Taenia pisiformis, Echinococcus multilocularis, Echinococcus granulosus, and Dipylidium caninum) infections in dogs and puppies two pounds of body weight or greater and six weeks of age and older

Dosage and Administration

INTERCEPTOR PLUS should be administered orally, once every month, at the minimum dosage of 0.23 mg/lb (0.5 mg/kg) milbemycin oxime, and 2.28 mg/lb (5 mg/kg) praziguantel. For heartworm prevention, give once monthly for at least 6 months after exposure to mosquitoes (see EFFECTIVENESS).

Dosage Schedule

Body Weight	Milbemycin Oxime per chewable	Praziquantel per chewable	Number of chewables
2 to 8 lbs.	2.3 mg	22.8 mg	One
8.1 to 25 lbs.	5.75 mg	57 mg	One
25.1 to 50 lbs.	11.5 mg	114 mg	One
50.1 to 100 lbs.	23 mg	228 mg	One
Over 100 lbs	Administer the appropriate combination of chewables		

INTERCEPTOR PLUS may be offered to the dog by hand or added to a small amount of dog food. The chewables should be administered in a manner that encourages the dog to chew, rather than to swallow without chewing. Chewables may be broken into pieces and fed to dogs that normally swallow treats whole. Care should be taken that the dog consumes the complete dose, and treated animals should be observed for a few minutes after administration to ensure that no part of the dose is lost or rejected. If it is suspected that any of the dose has been lost, redosing is recommended.

INTERCEPTOR PLUS should be administered at monthly intervals beginning within 1 month of the dog's first seasonal exposure to mosquitoes and continuing until at least 6 months after the dog's last seasonal exposure (see **EFFECTIVENESS**). INTERCEPTOR PLUS may be administered year-round without interruption. When switching from another heartworm preventative product to INTERCEPTOR PLUS, the first dose of INTERCEPTOR PLUS should be given within a month of the last dose of the former product.

Intestinal Nematode and Cestode Treatment and Control:

Dogs may be exposed to and can become infected with roundworms, whipworms, hookworms, and tapeworms throughout the year, regardless of season or climate. Clients should be advised of appropriate measures to prevent reinfection of their dog with intestinal parasites. Because the prepatent period for E. multilocularis may be as short as 26 days, dogs treated at the labeled monthly intervals may become reinfected and shed eggs between treatments

Contraindications

There are no known contraindications to the use of INTERCEPTOR PLUS

Warnings

Not for use in humans. Keep this and all drugs out of the reach of children.

Precautions

Treatment with fewer than 6 monthly doses after the last exposure to mosquitoes may not provide complete heartworm prevention (see EFFECTIVENESS).

Prior to administration of INTERCEPTOR PLUS, dogs should be tested for existing heartworm infections. At the discretion of the veterinarian, infected dogs should be treated to remove adult heartworms, INTERCEPTOR PLUS is not effective against adult D. immitis

Mild, transient hypersensitivity reactions, such as labored breathing, vomiting, hypersalivation. and lethargy, have been noted in some dogs treated with milbemycin oxime carrying a high number of circulating microfilariae. These reactions are presumably caused by release of protein from dead or dying microfilariae

Do not use in puppies less than six weeks of age.

Do not use in dogs or puppies less than two pounds of body weight.

The safety of INTERCEPTOR PLUS has not been evaluated in dogs used for breeding or in lactating females. Studies have been performed with milbemycin oxime alone (see ANIMAL SAFETY).

The following adverse reactions have been reported in dogs after administration of milbemycin oxime or praziquantel: vomiting, diarrhea, depression/lethargy, ataxia, anorexia, convulsions, weakness, and salivation.

To report suspected adverse events, for technical assistance or to obtain a copy of the Safety Data Sheet (SDS), contact Elanco US, Inc. at 1-888-545-5973.

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For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or http://www.fda.gov/reportanimalae.

Information for Owner or Person Treating Animal:

Echinococcus multilocularis and Echinococcus granulosus are tapeworms found in wild canids and domestic dogs. E. multilocularis and E. granulosus can infect humans and cause serious disease (alveolar hydatid disease and hydatid disease, respectively). Owners of dogs living in areas where E. multilocularis or E. granulosus are endemic should be instructed on how to minimize their risk of exposure to these parasites, as well as their dog's risk of exposure. Although INTERCEPTOR PLUS (milbemycine oxime/praziguantel) was 100% effective in laboratory studies in dogs against E. multilocularis and E. granulosus, no studies have been conducted to show that the use of this product will decrease the incidence of alveolar hydatid disease or hydatid disease in humans. Because the prepatent period for E. multilocularis may be as short as 26 days, dogs treated at the labeled monthly intervals may become reinfected and shed eggs between treatments.

Effectiveness

Heartworm Prevention.

In a well-controlled laboratory study, INTERCEPTOR PLUS was 100% effective against induced heartworm infections when administered once monthly for 6 consecutive months. In well-controlled laboratory studies, neither one dose nor two consecutive doses of INTERCEPTOR

PLUS provided 100% effectiveness against induced heartworm infections.

Intestinal Nematodes and Cestodes Treatment and Control:

Elimination of the adult stage of hookworm (Ancylostoma caninum), roundworm (Toxocara canis, Toxascaris leonina), whipworm (Trichuris vulpis) and tapeworm (Echinococcus multilocularis Echinococcus granulosus, Taenia pisiformis and Dipylidium caninum) infections in dogs was demonstrated in well-controlled laboratory studies.

In a field study of 115 dogs offered INTERCEPTOR PLUS, 108 dogs (94.0%) accepted the product when offered from the hand as if a treat, 1 dog (0.9%) accepted it from the bowl with food, 2 dogs (1.7%) accepted it when it was placed in the dog's mouth, and 4 dogs (3.5%) refused it.

Animal Safety

INTERCEPTOR PLUS:

In a repeated dose safety study, 40 ten-week-old puppies (10 per group) were dosed with either a sham dose (0X) or 1, 3, or 5X the maximum label exposure of INTERCEPTOR PLUS every 14 days for a total of seven treatments. Ataxia, lethargy, and salivation were seen in the 3X and 5X treated dogs following each of the seven doses. Vomiting was seen in all treatment groups but had a higher incidence in the 3X and 5X treatment groups.

In a repeated dose safety study, 64 six-week-old puppies (16 per group) were dosed with either a sham dose (0X) or 1, 3, or 5X the maximum label exposure of INTERCEPTOR PLUS every 14 days for a total of four treatments. Lethargy was observed in all groups. Ataxia was observed in the three treated groups, including one dog in the 1X treated group.

For both lethargy and ataxia the incidence and duration increased in the 3X and 5X groups.

These signs were observed during the first 24 hours following treatment.

Salivation and tremors were observed in the 3X and 5X treated dogs beginning immediately after dosing and up to six hours post dose. Vomiting was only observed in the 5X treatment group on most, but not all, treatment days,

For INTERCEPTOR PLUS the maximum exposure based on product dosing is 2.5 mg/kg for milbemycin oxime and 25.1 mg/kg for praziquantel, which is higher than the minimum effective dose used in the safety studies for milbemycin oxime (see below).

Milbemycin Oxime:

Two studies were conducted in heartworm-infected dogs treated with milbemycin oxime. Mild, transient hypersensitivity reactions were observed in dogs with high microfilariae counts

Safety studies in pregnant dogs demonstrated that doses of 0.6X the maximum exposure dose of INTERCEPTOR PLUS, (1.5 mg/kg of milbemycin oxime), administered daily from mating through weaning, resulted in measurable concentrations of milbemycin oxime in milk. Puppies nursing these females demonstrated milbemycin oxime-related effects (depression, decreased activity, diarrhea, dehydration, nasal discharge). A subsequent study, which evaluated the daily administration of 0.6X the maximum exposure dose of INTERCEPTOR PLUS, from mating until one week before weaning, demonstrated no effects on the pregnant females or their litters. A study, in which pregnant females were dosed once, at 0.6X the maximum exposure dose of INTERCEPTOR PLUS before, on the day of, or shortly after whelping, resulted in no effects on the puppies. Some nursing puppies, at 2, 4, and 6 weeks of age, administered oral doses of 9.6 mg/kg milbemycin oxime (3.8X the maximum exposure dose of INTERCEPTOR PLUS) exhibited tremors, vocalization, and ataxia. These effects were all transient and puppies returned to normal within 24 to 48 hours. No effects were observed in puppies administered 0.5 mg/kg milbemycin oxime (minimum label dose)

A rising-dose safety study conducted in rough-coated Collies resulted in ataxia, pyrexia, and periodic recumbency in one of fourteen dogs administered milbemycin oxime at 12.5 mg/kg (5X the maximum exposure dose of INTERCEPTOR PLUS). Prior to receiving the 12.5 mg/kg dose on day 56 of the study, all animals had undergone a dosing regimen consisting of 2.5 mg/kg milbemycin oxime on day 0, followed by 5.0 mg/kg on day 14, and 10.0 mg/kg on day 32. No adverse reactions were observed in any of the Collies treated with doses less than 12.5 mg/kg.

Store at room temperature, between 59° and 77°F (15-25°C).

How Supplied

INTERCEPTOR PLUS is available in four strengths, formulated according to the weight of the dog. Each strength is available in color-coded packages of one, six or twelve chewable tablets each.

Manufactured for: Elanco US Inc.

Greenfield, IN 46140, USA

Approved by FDA under NADA # 141-338

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Revision date: November 2020



Credelio (lotilaner)

Chewable Tablets

For oral use in dogs

Caution:

Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian.

Before using Credelio, please consult the product insert, a summary of which follows:

Indications:

CREDELIO kills adult fleas and is indicated for the treatment and prevention of flea infestations (Ctenocephalides felis) and the treatment and control of tick infestations [Amblyomma americanum (lone star tick), Dermacentor variabilis (American dog tick), Ixodes scapularis (black-legged tick) and Rhipicephalus sanguineus (brown dog tick)] for one month in dogs and puppies 8 weeks of age and older, and weighing 4.4 pounds or greater.

Dosage and Administration:

CREDELIO is given orally once a month, at the minimum dosage of 9 mg/lb (20 mg/kg).

Dosage Schedule:

Body Weight	Lotilaner Per Chewable Tablet (mg)	Chewable Tablets Administered	
4.4 to 6.0 lbs	56.25	One	
6.1 to 12.0 lbs	112.5	One	
12.1 to 25.0 lbs	225	One	
25.1 to 50.0 lbs	450	One	
50.1 to 100.0 lbs	900	One	
Over 100.0 lbs	Administer the appropriate combination of chewable tablets		

CREDELIO must be administered with food (see **Clinical Pharmacology**). Treatment with CREDELIO can begin at any time of the year and can continue year-round without interruption.

See product insert for complete dosing and administration information.

Contraindications:

There are no known contraindications for the use of CREDELIO.

Warnings:

Not for human use. Keep this and all drugs out of the reach of children. Keep CREDELIO in a secure location out of reach of dogs, cats, and other animals to prevent accidental ingestion or overdose.

Precautions:

Lotilaner is a member of the isoxazoline class. This class has been associated with neurologic adverse reactions including tremors, ataxia, and seizures. Seizures have been reported in dogs receiving isoxazoline class drugs, even in dogs without a history of seizures. Use with caution in dogs with a history of seizures or neurologic disorders.

The safe use of CREDELIO in breeding, pregnant or lactating dogs has not been evaluated.

Adverse Reactions:

In a well-controlled U.S. field study, which included 284 dogs (198 dogs treated with CREDELIO and 86 dogs treated with an oral active control), there were no serious adverse reactions.

Over the 90-day study period, all observations of potential adverse reactions were recorded. Reactions that occurred at an incidence of 1% or greater are presented in the following table.

Dogs with Adverse Reactions in the Field Study

Adverse Reaction (AR)	CREDELIO Group: Number (and Percent) of Dogs with the AR (n=198)	Active Control Group: Number (and Percent) of Dogs with the AR (n=86)
Weight Loss	3 (1.5%)	2 (2.3%)
Elevated Blood Urea Nitrogen (BUN)	2 (1.0%)*	0 (0.0%)
Polyuria	2 (1.0%)*	0 (0.0%)
Diarrhea	2 (1.0%)	2 (2.3%)

*Two geriatric dogs developed mildly elevated BUN (34 to 54 mg/dL; reference range: 6 to 31 mg/dL) during the study. One of these dogs also developed polyuria and a mildly elevated potassium (6.5 mEq/L; reference range: 3.6 to 5.5 mEq/L) and phosphorous (6.4 mg/dL; reference range: 2.5 to 6.0 mg/dL). The other dog also developed a mildly elevated creatinine (1.7 to 2.0 mg/dL; reference range: 0.5 to 1.6 mg/dL) and weight loss.

In addition, one dog experienced intermittent head tremors within 1.5 hours of administration of vaccines, an ear cleaning performed by the owner, and its first dose of CREDELIO. The head tremors resolved within 24 hours without treatment. The owner elected to withdraw the dog from the study.

In an Australian field study, one dog with a history of seizures experienced seizure activity (tremors and glazed eyes) six days after receiving CREDELIO. The dog recovered without treatment and completed the study. In the U.S. field study, two dogs with a history of seizures received CREDELIO and experienced no seizures throughout the study.

In three well-controlled European field studies and one U.S. laboratory study, seven dogs experienced episodes of vomiting and four dogs experienced episodes of diarrhea between 6 hours and 3 days after receiving CREDELIO.

To report suspected adverse events, for technical assistance or to obtain a copy of the Safety Data Sheet (SDS), contact Elanco US Inc. at 1-888-545-5973. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or http://www.fda.gov/reportanimalae.

Effectiveness:

In well-controlled European laboratory studies, CREDELIO began to kill fleas four hours after administration or infestation, with greater than 99% of fleas killed within eight hours after administration or infestation for 35 days. In a well-controlled U.S. laboratory study, CREDELIO demonstrated 100% effectiveness against adult fleas 12 hours after administration or infestation for 35 days.

In a 90-day well-controlled U.S. field study conducted in households with existing flea infestations of varying severity, the effectiveness of CREDELIO against fleas on Days 30, 60 and 90 compared to baseline was 99.5%,100% and 100%, respectively. Dogs with signs of flea allergy dermatitis showed improvement in erythema, papules, scaling, alopecia, dermatitis/pyodermatitis and pruritus as a direct result of eliminating fleas.

In a well-controlled laboratory study, CREDELIO killed fleas before they could lay eggs, thus preventing subsequent flea infestations for 30 days after the start of treatment of existing flea infestations.

In well-controlled laboratory studies, CREDELIO demonstrated > 97% effectiveness against *Amblyomma americanum, Dermacentor variabilis, Ixodes scapularis* and *Rhipicephalus sanguineus* ticks 48 hours after administration or infestation for 30 days. In a well-controlled European laboratory study, CREDELIO started killing *Ixodes ricinus* ticks within four hours after administration.

Storage Information:

Store at 15-25°C (59 -77°F), excursions permitted between 5 to 40°C (41 to 104°F).

How Supplied:

CREDELIO is available in five chewable tablet sizes for use in dogs: 56.25, 112.5, 225, 450, and 900 mg lotilaner.

Each chewable tablet size is available in color-coded packages of 1, 3 or 6 chewable tablets.

Approved by FDA under NADA # 141-494

Manufactured for:

Elanco US Inc

Greenfield, IN 46140 USA

Credelio.com

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UPGRADE TO



PROTECTION

Elanco has you covered from every angle

ALL 5 MAJOR WORMS



TASTY CHEW, 96.6% CLIENT ADMINISTRATION SUCCESS

IDEAL FOR ACTIVE DOGS

5-WORM **PROTECTION** **SMALL, HIGHLY PALATABLE, BEEF-FLAVORED CHEW**

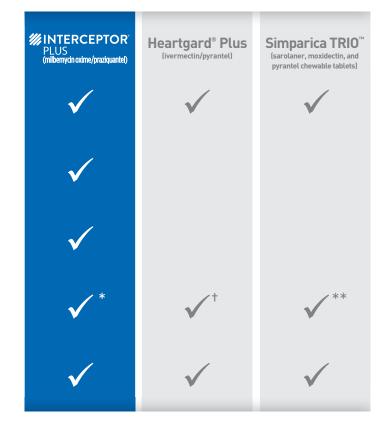
ACTS FAST

TOUGH TICK AND FLEA EFFICACY

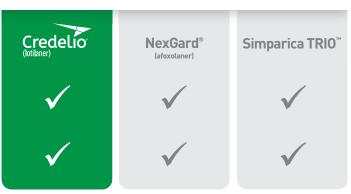
FLEAS & TICKS

Credelio (lotilaner)

INTERNAL PARASITE PROTECTION



EXTERNAL PARASITE PROTECTION





Tapeworm eggs are heavy and do not float easily. This is one of the reasons fecal flotations are thought to underestimate the frequency of tapeworm infection.⁶



In a recent study, passive fecal flotations performed by veterinarians only recovered 37.7% of whipworm infections.⁴



In a study, 100% of dogs were flea-free after three months of treatment with Credelio compared to just 93.2% of dogs treated with NexGard.⁵

FLEAS

HEARTWORM DISFASE

TAPEWORMS

WHIPWORMS

HOOKWORMS

ROUNDWORMS



InterceptorPlus.com

INTERCEPTOR® PLUS

Indications

Interceptor Plus is indicated for the prevention of heartworm disease caused by Dirofilaria immitis and for the treatment and control of adult roundworm (Toxocara canis, Toxascaris leonina), adult hookworm (Ancylostoma caninum), adult whipworm (Trichuris vulpis), and adult tapeworm (Taenia pisiformis, Echinococcus multilocularis, Echinococcus granulosus and Dipylidium caninum) infections in dogs and puppies 6 weeks of age or older and 2 pounds of body weight or greater.

Important Safety Information

Treatment with fewer than 6 monthly doses after the last exposure to mosquitoes may not provide complete heartworm prevention. Prior to administration of Interceptor, Plus, dogs should be tested for existing heartworm infections. The safety of Interceptor Plus has not been evaluated in dogs used for breeding or in lactating females. The following adverse reactions have been reported in dogs after administration of milbemycin oxime or praziquantel: vomiting, diarrhea, depression/lethargy, ataxia, anorexia, convulsions, weakness, and salivation. For full prescribing information see Interceptor Plus package insert.

CREDELIO®

Indications

Credelio kills adult fleas and is indicated for the treatment and prevention of flea infestations (Ctenocephalides felis) and the treatment and control of tick infestations [Amblyomma americanum (lone star tick), Dermacentor variabilis (American dog tick), Ixodes scapularis (black-legged tick) and Rhipicephalus sanguineus (brown dog tick)] for one month in dogs and puppies 8 weeks of age and older and weighing 4.4 pounds or greater.

Important Safety Information

Lotilaner is a member of the isoxazoline class. This class has been associated with neurologic adverse reactions including tremors, ataxia, and seizures. Seizures have been reported in dogs receiving this class of drugs, even in dogs without a history of seizures. Use with caution in dogs with a history of seizures or neurologic disorders. The safe use of Credelio in breeding, pregnant or lactating dogs has not been evaluated. The most frequently reported adverse reactions are weight loss, elevated blood urea nitrogen, polyuria, and diarrhea. For full prescribing information see Credelio package insert.

Stafford K, Kollasch TM, Duncan KT, et al. Detection of gastrointestinal parasitism at recreational canine sites in the USA: the DOGPARCS study. Parasit Vectors. 2020;13:275.

²Adolph C, et al. Diagnostic strategies to reveal covert infections with intestinal helminths in dogs. Vet Parasitol. 2017;247:108-12.

^oMcNamara et al. Parasites & Vectors. 2018;11:571. https://doi.org/10.1186/s13071-018-3149-1.

Dryden M, Herrin B, Payne P, et al. Further comparison of centrifugation versus passive fecal flotation for the recovery of Toxocara canis, Trichuris vulpis and

Ancylostoma caninum eggs [abstract]. In Proceedings WAAVP 27th Annual Meeting. Madison, WI; 2019. Jul 7-11.

⁵Karadzovska D, Chappell K, Coble S, et al. A randomized, controlled field study to assess the efficacy and safety of lotilaner flavored chewable tablets (Credelio™) in eliminating fleas in client-owned dogs in the USA. Parasite Vector. 2017;10:528.

Companion Animal Parasite Council. Dipylidium caninum. Available at: https://capcvet.org/quidelines/dipylidium-caninum/. Accessed April 28, 2020.

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