

TIAKUR®

Water-soluble powder for oral administration

Description

Yellow water-soluble powder.

Composition

1 g of the drug contains:

active ingredients: doxycycline hyclate – 200 mg; tiamulin (tiamulin hydrogen fumarate) – 66 mg;

excipient - glucose.

Pharmacological properties

ATC vet QJ01. Combined antibacterials of systemic action. **QJ01RA90.** Tetracyclines, combinations with other antibacterials, except trimethoprim.

Doxycycline is a broad-spectrum bacteriostatic antibiotic of the tetracyclines group. It is effective against gram-positive and gram-negative bacteria (*Staphylococcus spp.*, *Streptococcus spp.*, *Bac. anthracis*, *Clostridium spp.*, *Listeria spp.*, *Actinomyces spp.*, *Klebsiella spp.*, *Shigella spp.*, *Yersinia spp.*, *Bordetella spp.*, *Campylobacter spp.*, *E. coli*, *Haemophilus spp.*, *Pasteurella spp.*, *Salmonella spp.*), chlamydiae (*Chlamydia spp.*), mycoplasma (*Mycoplasmaspp.*) and rickettsiae (*Rickettsia spp.*). Doxycycline inhibits synthesis of proteins of microbial cell, binding receptors of ribosomal 30S subunit in microorganisms. It blocks attachment of aminoacyl tRNA to acceptor site, preventing attachment of new amino acids to peptide chain and preventing in such way synthesis of microbial proteins.

Tiamulin is a semisynthetic antibiotic of the diterpenes group, which is effective against gram-positive (*Staphylococcus spp.*, *Streptococcus spp.*, *Clostridium spp.*, *Corynebacterium spp.*, *Erysipelothrix spp.*, *Listeria spp.*) and certain gram-negative microorganisms (*Haemophilus influenzae*, *Pasteurella multocida*, *Actinobacillus pleuropneumoniae*, *Campylobacter spp.*), spirochetes (*Serpulina hyodysenteriae*, *S. innocens*, *S. pilosicoli*, *S. suis*) as well as *Lawsonia intracellularis*. The mechanism of its antibacterial activity consists in inhibition of synthesis of bacterial protein at the level of ribosomal 50S subunit.

After oral administration, doxycycline is well absorbed from digestive tract and reaches maximum concentration in blood serum in 2 hours. It penetrates into lungs, thus, it is effective in treatment of respiratory infections. Feed in digestive tract does not make any impact upon absorption of doxycycline. Bioavailability of the antibiotic is 50-80 %. Doxycycline is well dissolved in lipids, which causes its distribution in most tissues. It is subject to minor biotransformations before elimination. Half-life in chickens makes 4.8 hours, in swine- 3,9 hours. Doxycycline, unlike other tetracyclines, is released into intestinal tract in large quantity and inactivated. Out of 90% of the substance 16% is eliminated with urine, about 5% - with bile, the rest is eliminated intestinally.

Administration

Swine. Treatment of dysentery, atrophic rhinitis, enzootic pneumonia, actinobacillosis pleuropneumonia, hemophilosis, intestinal spirochetosis, salmonellosis, colibacteriosis, necrotic enteritis, caused by microorganisms sensitive to tiamulin and doxycycline.

Hens (chickens, broiler chickens) and turkeys. Treatment of diseases of digestive tract and respiratory organs caused by tiamulin - and doxycycline-sensitive microorganisms (*Mycoplasma gallisepticum*, *Mycoplasma synoviae* and *Mycoplasma meleagridis*).

Dosage

Administer orally with feed or drinking water in the following doses:

- **swine** - 0,5-1 kg of the drug per 1000 kg of feed or 0,25-0,5 kg of the drug per 1000 liters of drinking water daily for 7 days;

- **poultry (chickens, broiler chickens) and turkeys** -0.25-0.5 kg of the drug per 1 ton of feed or 0.125-0.25 kg of the drug per 1 ton of drinking water daily for 7 days.

Contraindications

Do not administer to animals with hypersensitivity to tetracyclines and tiamulin as well as to animals with kidney and liver disorders. Avoid administration of drugs containing monensin, maduramycin, narasin, lasalocid or salinomycin at least in 7 days prior to, during and in 7 days following administration of Tiakur® as this may cause deterioration in health condition or even death. Do not prescribe in combination with penicillins, cephalosporins, quinolones, erythromycin, sulfonamides, chloramphenicol and chlorpromazine as well as with drugs containing cations of magnesium, calcium, aluminum, as the latter

are bound to doxycycline and prevent its absorption.

Do not administer the drug to hens and turkeys laying eggs for human consumption. Do not administer the drug to pregnant or lactating animals.

Precautions

Animal slaughter for meat is possible in 10 days following the last administration. Meat obtained before the mentioned term shall be utilized or fed to non-productive animals depending on the statement of veterinary physician.

Doxycycline as the drug component may cause structural changes in liver and kidneys, diarrhea. It is recommended to avoid administration of Tiakur[®] in combination with antacids, oxidants and kaolin.

Packaging

Bags of 1 000 g film or foil materials.

Storage

Store in a dry, dark place out of the reach of children at 5-30°C.

Shelf life

18 months.

24 hours after dissolution in drinking water.

7 days after being mixed with feed.