*For the use of Registered Veterinary Practitioner, Hospital or Laboratory*

# DOXYPET

(Doxycycline and Lactic Acid Bacillus Tablets)

**Composition:**

Each film coated tablet of **DOXYPET 100** contains

| | |
|---|---|
| Doxycycline Hydrochloride IP | |
| Eq.to Doxycycline | 100 mg |
| Lactic Acid Bacillus | 100 million spores |
| Excipients | Q.S. |

Colour: Erythrosine Supra

Each film coated tablet of **DOXYPET 200** contains

| | |
|---|---|
| Doxycycline Hydrochloride IP | |
| Eq. to Doxycycline | 200 mg |
| Lactic Acid Bacillus | 200 million spores |
| Excipients | QS |

Color: Sunset Yellow FCF

Each film coated tablet of **DOXYPET 300** contains

| | |
|---|---|
| Doxycycline Hydrochloride IP | |
| Eq. to Doxycycline | 300 mg |
| Lactic Acid Bacillus | 300 million spores |
| Excipients | QS |

Colour: Sunset Yellow Lake
Approved flavor Used.

**Description:**

DOXYPET tablet contains Doxycycline and Lactic acid bacillus. Doxycycline is an antibacterial drug synthetically derived from oxytetracycline.
Doxycycline has a high degree of lipid solubility and a low affinity for calcium binding. Lactic acid bacillus is Gram positive, spore forming and lactic acid producing bacillus.

**Clinical Pharmacology:**

**Pharmacodynamics:**

**Doxycycline**

It is active against a large number of Gram positive and Gram negative pathogens including strains resistant to first generation tetracyclines. It is essentially bacteriostatic; it inhibits the bacterial protein synthesis by blocking binding of transfer RNA to the messenger RNA-ribosome complex.

**Lactic Acid Bacillus**

Lactic acid bacilli are helpful bacteria, occurs naturally in intestine and constitute major part of the intestinal microflora.
Lactic acid bacillus is presumed to be result of improving gastrointestinal ecology by replenishing the quantity of desirable obligate microorganisms and antagonizing pathogenic microbes.

**Pharmacokinetics:**

**Doxycycline**

Doxycycline is completely absorbed from the upper part of the gastrointestinal tract after oral administration. Doxycycline is more lipophilic than most tetracyclines. Thus, it has better bioavailability (as compared to most tetracyclines; 90-100%) and is rapidly absorbed (80-90% of oral dose within an hour) with a longer serum half-life (19-20 hours).

In spite of a high protein binding rate, the volume of distribution of doxycycline is high demonstrating that doxycycline is broadly distributed in organs and tissues.

Doxycycline is metabolized by the liver and is mainly excreted as unchanged drug and eliminated in feces and urine.

**Lactic Acid Bacillus**

After oral administration, Lactic acid bacillus passes through the stomach in its spore form and upon arrival in the duodenum, it germinates and multiplies rapidly. The average duration of the time between oral dosage and germinations is four hours. After germination, Lactic acid bacilli are metabolically active in the intestine and resulting in production of lactic acid. Lactic acid bacillus is considered as a semi resident indicating that it takes up only a temporary residence in intestine.
Spore of lactic acid bacillus are excreted slowly via the faeces for appropriately seven days after discontinuation of administration.

**Indications:**

For the treatment of infections caused by bacteria (including Spirochete and Rickettsia) and hemoprotozoa in dogs
For the treatment of respiratory tract infections dogs, including rhinitis, tonsillitis and bronchopneumonia
Treatment of arthropod-borne *Ehrlichia canis* infection in dogs

**Dosage and Administration:**

Recommended dosage is 10 mg/kg body weight (One tablet for 10 kg) once a day for 7 to 28 days and may vary according to the severity and type of infections.

**Contraindications:**

Do not use in pregnant or lactating animals.
Do not use in known cases of hypersensitivity to the active ingredient.

**Warning and Precautions:**
Special precautions for use in young animals
Do not exceed the recommended dosage.
Tablets should be administered at feeding time.

**Adverse reactions:**
Photodermatitis may occur following tetracycline therapy after exposure to intense sunlight or ultraviolet light.

Use of tetracycline during the period of tooth development may lead to tooth discoloration. Doxycycline, because of its lower affinity for calcium, carries a lower risk than other tetracyclines.

Vomiting, esophagitis and esophageal ulcerations have been reported as side effects following doxycycline therapy. To alleviate these effects, the drug can be given with food without clinically significant reductions in drug absorption.

In cats, oral doxycycline has been implicated in causing esophageal strictures. If using oral tablets, be sure that “pilling” is followed by at least 6 mL of water. Do not give dry pill.

**Drug interactions:**
Cross resistance to other tetracyclines can occur. Doxycycline should not be used concurrently with other antibiotics especially bactericidal drugs such as the β-lactams. The half-life of doxycycline is reduced by concurrent administration of barbiturates or phenytoin.

Simultaneous administration of oral absorbents, iron preparations and antacids should be avoided as they reduce doxycycline availability.

**Storage:**
Store in cool and dry place below 30°C. Protect from direct sunlight & moisture.

Keep out of reach of Children

**Presentation:** Strip of 10 Tablets

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SAVAVET
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