



HP Ingredients
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The Problem

The use of antibiotics and pharmaceutical drugs has become unavoidable in the modern animal industry. Despite the sanitary improvements, various novel diseases impair the productivity and earnings of the animal industry. The use of drugs could be expensive, risky and generate public concern in terms of drug resistance generation to pathogens, like antibiotics. In this scenario, strategies that can help reduce the amount of drugs administered per animal become a key aspect of therapeutic administration in animal health management.

Bioavailability is the rate and extent to which a therapeutically active substance enters systemic circulation and becomes available at the required site of action.

A bioenhancer is an agent capable of enhancing bioavailability and bio-efficacy of a particular drug with which it is combined, without any typical pharmacological activity of its own at the dose used. The term bioavailability enhancer was first coined in 1979, as molecules which do not possess drug activity of their own at the dosage used but promote and augment the biological activity or bioavailability or the uptake of drugs in combination therapy.

The benefits of adding a bioenhancer include reduced drug dosage, reduced cost of the drug, reduced incidence of drug resistance, reduced risk of adverse drug reaction/side effects, and promotion of the absorption of nutrients like amino acids, vitamins, minerals and pigments.

What is AktivControl™?

AktivControl™ is a scientifically formulated feed additive based on a micro-pulverized seaweed blend with a standardized extract of Piperaceae and Citrus, and Cinnamamides. AktivControl™ enhances bioavailability of different drugs including tetracyclines, sulfadiazine, vasicine, rifampicin, INH, pyrazinamide, ethambutol, phenytoin, phenobarbitone, carbamazepine, nimesulide, indomethacin betacarotene, ciprofloxacin and several other classes of drugs.

AktivControl™ improves the absorption of many nutrients such as Vitamin C, Vitamin A, Vitamin B6, Coenzyme Q 10, and amino acids.

Benefits of AktivControl™

- Enhances drug and nutrients absorption
- Reduces drug dose and cost
- Reduces drug resistance
- Protects the animal from aflatoxins intoxications

Mechanism of Action for AktivControl™

AktivControl™ inhibits drug-metabolizing enzymes especially in the liver when the drug passes through the liver after absorption from the Gastrointestinal Tract. AktivControl™ stimulates absorption by stimulating gut amino acid transporters, inhibiting the cell pump responsible for drug elimination from cells, and inhibiting intestinal production of glucuronic acid, thus permitting a more active form of drugs to enter to the body. AktivControl™ acts as a modulator of cell membrane dynamics and helps the transport of drugs across these barriers, helping them to reach the target site.

Direction of Use:

500g/ton of feed 7-30 days before or during the medicated diets.