

## Benzimidazole, HRP conjugate

Cat.No:DAG1033

Lot. No. (See product label)

### PRODUCT INFORMATION

<b>Storage</b>	Can be stored at 2-8°C for up to 3 months and at -20°C for longer term storage.
<b>Antigen Description</b>	Anthelmintics or anti-helminthics are a class of drugs that are effective against a range of intestinal parasitic worms (helminths). Parasitic helminths must maintain an appropriate feeding site. Nematodes and trematodes must actively ingest and move food through their digestive tracts to maintain an appropriate energy state; these together with reproductive processes require a well defined and developed neuromuscular coordination. Anthelmintic treatment is a multi-targeting system designed to interfere with the integrity of parasite cells. The pharmacologic basis of the treatment for helminths involves the targeting of neuromuscular coordination, or protective mechanisms against host immunity, which lead to starvation, paralysis, and expulsion of the parasite. The benzimidazole class of drugs were introduced in 1961 and interfere with the parasite's ATP pathway on a cellular level. They bind to a specific building block called b-tubulin and prevent its incorporation into certain cellular structures called microtubules, which are essential for energy metabolism.
<b>conjugate</b>	HRP
<b>Source</b>	Anti-Parasitic Drugs
<b>Form</b>	concentrate
<b>Characteristic</b>	Each conjugate comprises antigen covalently bound to horseradish peroxide and is suitable as a tracer in immunoassay development

### Background

<b>Introduction</b>	Bacitracin is a mixture of related cyclic polypeptides produced by organisms of the licheniformis group of Bacillus subtilis var Tracy, isolation of which was first reported in 1945. As a toxic and difficult-to-use antibiotic, bacitracin does not work well orally. However, it is very effective topically, and is a common ingredient of eye and skin antibiotic preparations. Its action is on Gram-positive cell walls. It can cause contact dermatitis and cross-reacts with allergic sensitivity to sulfa-drugs. When given intramuscularly, bacitracin's absorption is rapid and complete, but its nephrotoxicity (kidney damage potential) has limited its use to infants only, and then in very specific circumstances. In 2010 it was approved by the US FDA by this route for the very narrow indication of treatment of infants with staphylococcal pneumonia and empyema when due to organisms shown to be susceptible to bacitracin. It can only be used where adequate laboratory facilities are available for checking the drug's concentration in blood.
<b>Keywords</b>	ayfivin; baciguent; baciliquin; bacitekointment; mycitracinpluspainreliever; penitracin; Ginebatin; Bacitracin