

## 12-8532: Anti-Canine Heartworm [Clone 167]

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	167
<b>Application :</b>	ELISA
<b>Alternative Name :</b>	Dirofilaria immitis
<b>Isotype :</b>	Mouse IgG

### Description

Heartworm disease is a parasitic illness caused by the nematode *Dirofilaria immitis*. This zoonotic disease affects domestic and wild animals, particularly dogs, and can also infect humans. It's transmitted by mosquitoes and is most common in temperate, tropical, and subtropical regions worldwide.

#### *Distribution and Prevalence*

In the United States, heartworm disease is found in all states, though it is most prevalent in the eastern and southeastern regions. However, its occurrence is rising in western states as well. While *D. immitis* is the primary species causing heartworm in humans in the U.S., a related species, *D. tenuis*, is common in raccoons. In Europe, *D. immitis* is mainly found in the Mediterranean, while another species, *D. repens*, is more common in northern European countries.

#### *Life Cycle and Transmission*

The heartworm life cycle requires mosquitoes to act as an intermediate host. During a blood meal on an infected animal, a mosquito ingests microfilariae (immature heartworms) that are circulating in the host's bloodstream. These microfilariae develop into an infectious larval stage inside the mosquito. When the mosquito bites another host, these larvae are transmitted, where they mature into adult heartworms. Adult heartworms can live for 3 to 5 years in an animal's body and can be transmitted by at least 70 different species of mosquitoes.

#### *Diagnosis*

Diagnosing heartworm infection in dogs primarily involves detecting antigens of *D. immitis* in the animal's blood. The ELISA (Enzyme-linked immunosorbent assay) is the most common diagnostic tool. This test is highly sensitive and can detect heartworm infection even when a dog has only a single adult female worm. Point-of-care tests, such as lateral flow and membrane-bound ELISAs, are also available for rapid in-clinic results and offer good sensitivity, particularly when three or more female worms are present.

### Product Info

<b>Amount :</b>	1 mg
<b>Purification :</b>	>95% monomer by analytical SEC
<b>Content :</b>	Concentration: $\geq 1.0$ mg/ml Formulation: This purified antibody is supplied in 0.05 M phosphate buffered saline (PBS), pH 7.2 - 7.4, containing 0.1% sodium azide. as a preservative.