



Canine Heartworm (3217): sc-58105

BACKGROUND

Heartworm is a parasitic roundworm that is spread from host to host through the bites of mosquitoes. A mosquito ingests heartworm larvae, called microfilariae, from an infected host. The mosquito then transfers the larvae to another uninfected host when next it feeds. The microfilariae then go through several changes to reach adult form, eventually traveling to the right side of the heart to reproduce. In the final reproductive stage of its life cycle, Heartworms can reach up to 12 inches in length and reside in the heart of its host where they may stay for many years, commonly killing the host. Early symptoms in dogs include a cough, especially on exercise and early exhaustion upon exercise. More advanced cases progress to severe weight loss, fainting, coughing up blood and, finally, congestive heart failure leading to death.

REFERENCES

1. Poglayen, G., Martini, M., Bomben, L. and Roda, R. 1996. An updating of the occurrence of Canine Heartworm disease in northern Italy. *Vet. Res. Commun.* 20: 303-307.
2. Capelli, G., Poglayen, G., Bertotti, F., Giupponi, S. and Martini, M. 1996. The host-parasite relationship in Canine Heartworm infection in a hyper-endemic area of Italy. *Vet. Res. Commun.* 20: 320-330.
3. Yoshida, M., Nakagaki, K., Nogami, S., Harasawa, R., Maeda, R., Katae, H. and Hayashi, Y. 1997. Immunologic protection against Canine Heartworm infection. *J. Vet. Med. Sci.* 59: 1115-1121.
4. Miller, MW. 1998. Canine Heartworm disease. *Clin. Tech. Small Anim. Pract.* 13: 113-118.
5. Shibata, T., Wakao, Y. and Takahashi, M. 2000. A clinical study on velocity patterns of pulmonary venous flow in Canine Heartworm disease. *J. Vet. Med. Sci.* 62: 169-177.
6. Roemer, G.W., Coonan, T.J., Garcelon, D.K., Starbird, C.H. and McCall, J.W. 2000. Spatial and temporal variation in the seroprevalence of Canine Heartworm antigen in the island fox. *J. Wildl. Dis.* 36: 723-728.
7. Arita, N., Yamane, I. and Takemura, N. 2003. Comparison of Canine Heartworm removal rates using flexible alligator forceps guided by trans-esophageal echocardiography and fluoroscopy. *J. Vet. Med. Sci.* 65: 259-261.
8. Hu, M., Gasser, R.B., Abs El-Osta, Y.G. and Chilton, N.B. 2003. Structure and organization of the mitochondrial genome of the Canine Heartworm, *Dirofilaria immitis*. *Parasitology* 127: 37-51.

SOURCE

Canine Heartworm (3217) is a mouse monoclonal antibody raised against Canine Heartworm.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

Canine Heartworm (3217) is recommended for detection of Canine Heartworm of *D. immitis* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.