

Rapid Test Kit

Heartworm Ag 2.0

Anigen Rapid *Dirofilaria immitis* (Heartworm) Ag Test Kit is a solid phase chromatographic immunoassay for the qualitative detection of Canine *Dirofilaria immitis* antigen in canine serum, plasma, or whole blood



Background

Heartworm (*Dirofilaria immitis*) is a relatively large parasite that, in adulthood, lives in the heart and pulmonary arteries of an infected dog. Dogs acquire this infection when larval heartworms are transferred between infected and healthy dogs via mosquito bites. Some geographic areas with high mosquito populations have severe heartworm problems. Commercial HW antigen tests detect specific antigens from adult female heartworms, and are used with varying success to detect canine heartworm infection.

Currently, most commercial tests will accurately detect infections with 3-5 (or more) mature female heartworms that are at least 7 or 8 months old, but generally do not detect infections of less than 5 months duration. All heartworm infections do not result in microfilaria circulating in the blood, especially in cases of occult heartworm infection, single sex heartworm infection, periodic appearance, host immune responses and most significantly the administration of heartworm preventives.

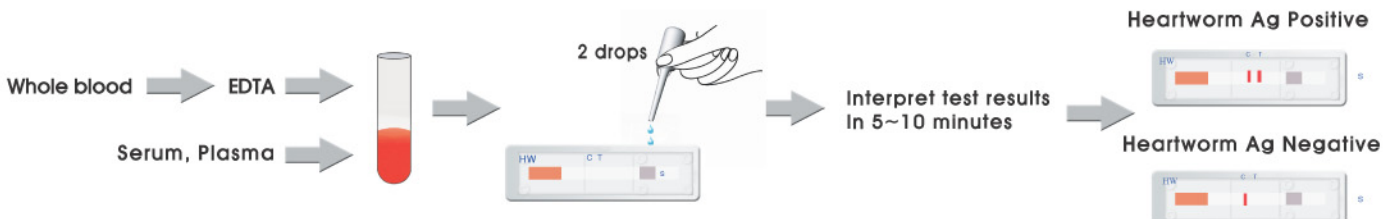
Specifications

- Principle : Immunochromatographic assay using Direct Sandwich Method
 - Antibodies against *Dirofilaria immitis* (Capture) - *Dirofilaria immitis* Ag
 - Antibodies against *Dirofilaria immitis* (Detector)
- Purpose : Detection of Canine *Dirofilaria immitis* antigen
- Specimen : Canine serum, plasma, or whole blood
- Reading time : 5 -10 minutes
- Sensitivity : 94.4% vs. Necropsy
- Specificity : 100% vs. Necropsy
- No cross reaction with *Dipetalonema reconditum*, parasites caused by flea, lice
- Shelf life : 24 months
- Storage temperature : 2~30°C
- Packing size : 10 Tests/Kit
- CAT. No. : RG11-02

Special Features

- Unique antibody system in the Anigen Canine Heartworm Ag test kit
- Detection of heartworms that are at least 7~8 months old
- High sensitivity : Accurately detects infections with a burden of 2 heartworms of any type including
 - (1) Male (2) Adult female (3) Immature female (4) Non-propagated female worms
- Rapid test result : 10 minutes
- One step testing procedure : Easy to use, saving time and labor
- No additional equipment is required

Test Procedures



Sensitivity and Specificity Study

Table 1. Sensitivity and specificity of Anigen Rapid Heartworm Ag

Infection Status		No. of specimen	No. of worm/dog	No. of Positive results by Anigen Rapid Heartworm Ag
Negative (102)		102	0	0
Positive (72)	Only adolescent worms	7	1-6	4
	Only male adult worms	4	1-3	4
	Only female adult worms	8	1-2	7
	Adult and adolescent male worms	6	1-2 adult worms	6
	Adult and adolescent male worms	11	>2 adult worms	11
	Adult and adolescent female worms	8	1-2 adult worms	8
	Adult and adolescent female worms	6	>2 adult worms	6
	Adult and adolescent worms of both sexes	12	1-2 adult worms	12
Adult and adolescent worms of both sexes	10	>2 adult worms	10	
Total (Negative/Positive)		102/72		102/68

• Sensitivity: 94.4%(68/72) • Specificity: 100%(100/100)

Table 2. Comparative Sensitivity and Specificity of Commercial Kits Vs. Necropsy (Published in AAVP, American Association of Veterinary Parasitologists)

	Sensitivity (%)			Specificity (n=54)
	1 adult female worm (n=13)	2 adult female worms (n=12)	>3 adult female worms (n=30)	
Anigen Heartworm Ag	85 %	100 %	100 %	100 %
Company A	76.2 %	85 %	100 %	
Company B	76.2 %	95 %	96.5 %	
Company C	71.4 %	90 %	94.7 %	