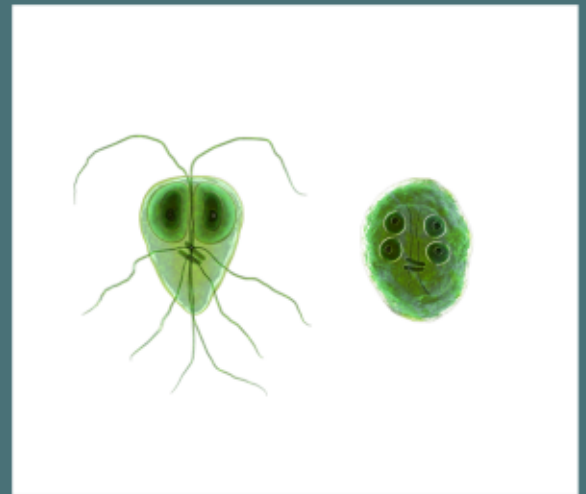




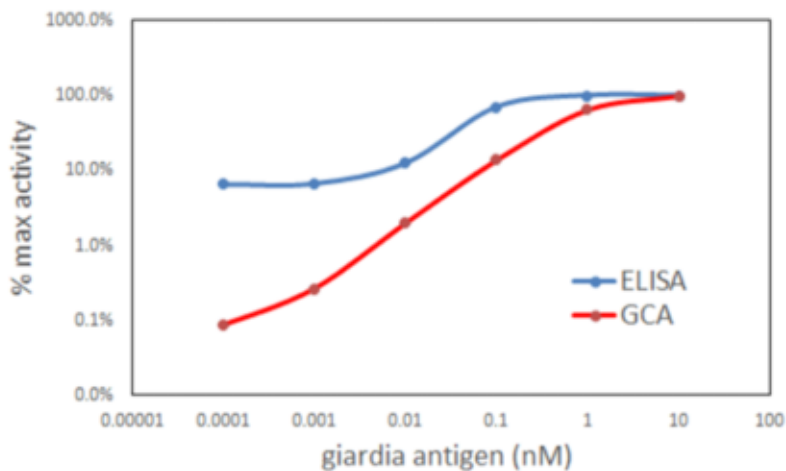
Giardia Chemiluminescence Assay

Fully automated, enzyme immunoassay for qualitative detection of Giardia cyst antigen in veterinary fecal specimens.

Giardia lamblia is a protozoan parasite that causes the disease giardiasis in humans and in animals. The parasite causes infections from water contamination and in travelers who have been in endemic areas. Transmission also occurs by direct contact often by asymptomatic carriers and by food contamination. Veterinary studies show significant prevalence of giardia in farm animals and companion animals.



Detection Window



Chemiluminescence has very low baseline activity with a detection window >1000 fold, compared to typical 30 fold window in ELISA. GCA also has a detection limit at least 20 times lower than ELISA.

Clarify Borderline

Sample#	Study-1	Study-2	Study-3	Study-4
1	Borderline	Borderline	Borderline	Borderline
2	Positive	Positive	Positive	Positive
3	Negative	Negative	Negative	Negative
4	Negative	Negative	Negative	Negative
5	Positive	Positive	Positive	Positive
6	Negative	Negative	Negative	Negative
7	Positive	Positive	Positive	Positive
8	Negative	Negative	Negative	Negative
9	Negative	Negative	Negative	Negative
10	Negative	Positive	Positive	Positive
11	Positive	Positive	Positive	Positive
12	Borderline	Negative	Negative	Negative
13	Positive	Borderline	Negative	Borderline
14	Positive	Positive	Positive	Positive
15	Positive	Positive	Positive	Positive

Among samples that read borderline in ELISA, GCA identifies more than 2/3 of them as definitive positive or negative.

Giardia Chemiluminescence Assay (GCA) is a novel tool to detect Giardia lamblia cyst antigen in veterinary fecal specimens. Compared to traditional ELISA, GCA is significantly more robust in its ability to detect Giardia antigen. GCA detects via chemiluminescence instead of absorbance, broadening its detection window. As a fully automated system, GCA is an easy assay to perform with a high degree of reproducibility and allows for a user-friendly lab experience. GCA is also available in a manual test format.



Full Automation

Workflow Comparison ELISA vs GCA

Yellow: hands-on Blue: hands-off
Steps are based on 2 full assay plates.

ELISA	GCA
Set up	Set up
Add samples	Add samples: Incubate: Wash
Incubate	
Wash samples	Add conjugates: Incubate: Wash
Add conjugate	
Incubate	Add substrate: Incubate: Read
Wash conjugate	
Add substrate	Report
Incubate	
Add stop solution: Read	
Report	

Automation reduces hands-on time by 85%, ensures sample tracking and timed reaction steps throughout the assay.

Performance

		GCA	
		Positive	Negative
Standard	Positive	97	3
	Negative	6	59
GCA Sensitivity		97.0%	
GCA Specificity		90.8%	

(Standard: Giardia II ELISA. Samples: dog fecal samples.)

Compared to traditional immunoassay, GCA shows 97% sensitivity and 90% specificity.



THUNDERBOLT® ANALYZER

The ThunderBolt® is an innovative 2-plate, fully automated, open platform, that can run ELISA and Chemiluminescence (CLIA) assays. This walk-away instrument was designed to simplify your laboratory experience, increase your productivity, and reduce your waste.

Kit Content (192 tests)

- 2 Assay Plates (96 wells / plate)
- 2 bottles Assay Buffer, 20X Concentrate (30 ml / bottle)
- 1 bottle Diluent (20 ml)
- 1 bottle Conjugate (20 ml)
- 1 bottle Substrate (20 ml)
- 1 bottle Calibrator (3 ml)
- 1 bottle Negative Control (3 ml)
- 1 bottle Positive Control (3 ml)
- 1 Instruction for Use



Cat#: 10-5002 Product: Giardia Chemiluminescence Assay
For Research Use Only