

## Giardia Antibodies in Serum

<b>Specimen Type</b>	Serum			
<b>Specimen Volume</b>	1 mL			
<b>Collection</b>	Red top tube with no additives or serum gel tube. Let sit for 30 minutes. Centrifuge at 3000 rpm for 10 minutes. Remove serum and freeze immediately.			
<b>Minimum Volume</b>	0.5 mL			
<b>Handling</b>	Ship frozen on dry ice.			
<b>Rejection Criteria</b>	Specimens with bacterial or fungal contamination. Specimens outside of listed stability. Samples submitted without two unique identifiers and date of collection.			
<b>Stability</b>	Refrigerated for 7 days. Frozen for 5 weeks.			
<b>Methodology</b>	ELISA			
<b>Reference Ranges</b>	<b>Isotype</b>	<b>Negative</b>	<b>Equivocal</b>	<b>Positive</b>
	<b>IgA</b>	< 36.6 U/mL	36.6 – 48.0 U/mL	> 48.0 U/mL
	<b>IgG</b>	< 20.6 U/mL	20.6 – 25.8 U/mL	> 25.8 U/mL
	<b>IgM</b>	< 33.0 U/mL	33.0 – 42.0 U/mL	> 42.0 U/mL
<b>Turnaround Time</b>	Up to 7 business days.			
<b>CPT Code</b>	86674 x 3			
<b>Clinical Significance</b>	<p>Giardiasis is a diarrheal illness caused by <i>Giardia lamblia</i>. Once a person has been infected with <i>Giardia</i>, the parasite lives in the intestine and is passed in the stool. <i>Giardia</i> is found in soil, food, and water that have been contaminated with the feces of infected animals. Because the organism is protected by an outer shell, it can survive outside the body in the environment for long periods of time.</p> <p>Because it is spread worldwide, it has become one of the most important causes of chronic diarrhea. Despite the fact that it is a luminal pathogen, it evokes both systemic and local immune responses. Studies have found that about 86% of infected individuals develop serum antibodies against <i>Giardia lamblia</i>, most notably IgG and IgA.</p>			
<b>Principle</b>	<p>Standards, controls, and unknown samples are added to microtiter wells that are coated with a highly purified <i>Giardia lamblia</i> antigen. The antigen binds anti-<i>Giardia</i> IgX antibodies and unbound constituents are washed away.</p> <p>An HRP conjugated antibody which specifically recognizes human IgX is then added. After an incubation period, the excess conjugate is washed away and a substrate (TBM) is added. After incubation, a stop solution is added and the microplate is read on a spectrophotometer. The absorbance of a well at 450 nm is directly proportional</p>			

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	to the amount of anti- <i>Giardia</i> IgX antibodies present.
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