

Overview**Useful For**

As an adjunct in the diagnosis of trichinosis

Method Name

Enzyme-Linked Immunosorbent Assay (ELISA)

NY State Available

Yes

Specimen**Specimen Type**

Serum

Specimen Required**Container/Tube:**

Preferred: Serum gel

Acceptable: Red top

Specimen Volume: 0.5 mL

Forms

If not ordering electronically, complete, print, and send a [Microbiology Test Request](#) (T244) with the specimen.

Specimen Minimum Volume

0.15 mL

Reject Due To

Gross hemolysis	Reject
Gross lipemia	Reject

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Serum	Frozen (preferred)	30 days	
	Refrigerated	5 days	

Clinical and Interpretive**Clinical Information**

Trichinosis is an infection by the nematode parasite, *Trichinella spiralis*. The infection is acquired by ingestion of larvae in inadequately cooked, contaminated meat, especially pork, bear, and walrus meat. After ingestion, acid-pepsin digestion in the stomach liberates the larvae, which develop into adult worms in the small intestine. After fertilization, the female worm produces larvae that penetrate the mucosa and seed the skeletal muscles via the blood stream. The larvae coil and encyst in muscle fibers, remaining viable for up to several years.

Diarrhea is the most common symptom associated with intestinal infection with adult worms. Fever, periorbital swelling, muscle pain and swelling, pulmonary symptoms, and rash develop during systemic invasion by the larvae.

Reference Values

Negative

Reference values apply to all ages.

Interpretation

A positive ELISA result suggests current infection with *Trichinella spiralis*. Serology should be used in conjunction with clinical, epidemiologic, and other laboratory tests to establish the correct diagnosis.

The number of individuals showing positive results may vary significantly between populations and geographic regions.

Cautions

Antibodies to *Trichinella spiralis* may not be detectable until 3 weeks after the onset of infection. Therefore, negative results in suspicious cases should be followed by repeat testing in several weeks.

Clinical Reference

Grove DI: Tissue nematodes. In Principles and Practice of Infectious Diseases. Vol 2. Fourth edition. Edited by GL Mandell, JE Bennett, R Dolin. Vol. 2. New York, Churchill Livingstone, 1995, pp 2531-2537

Performance

Method Description

Microtiter strip wells are precoated with *Trichinella spiralis* ES-antigens (Excretory/Secretory antigens) to bind corresponding antibodies of the specimen. After washing the wells to remove all unbound sample material horseradish peroxidase (HRP)-labelled Protein A conjugate is added. This conjugate binds to the captured *Trichinella spiralis*-specific antibodies. The immune complex formed by the bound conjugate is visualized by adding tetramethylbenzidine (TMB) substrate, which gives a blue reaction product. The intensity of this product is proportional to the amount of *Trichinella spiralis* specific antibodies in the specimen. Sulfuric acid is added to stop the reaction. This produces a yellow end point color. Absorbance alternative 450 nm is read using an ELISA microwell plate reader. (Package insert: *Trichinella spiralis* ELIS IgG, Gold Standard Diagnostics, Davis, California, 04/24/2014)

PDF Report

No

Day(s) and Time(s) Test Performed

Tuesday, Thursday; 9 a.m.

Analytic Time

1 day

Maximum Laboratory Time

5 days

Specimen Retention Time

14 days

Performing Laboratory Location

Rochester

Fees and Codes**Fees**

- Authorized users can sign in to [Test Prices](#) for detailed fee information.
- Clients without access to Test Prices can contact [Customer Service](#) 24 hours a day, seven days a week.
- Prospective clients should contact their Regional Manager. For assistance, contact [Customer Service](#).

Test Classification

This test has been cleared, approved or is exempt by the U.S. Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

CPT Code Information

86784

LOINC® Information

Test ID	Test Order Name	Order LOINC Value
STRIC	Trichinella Ab, S	19253-4

Result ID	Test Result Name	Result LOINC Value
9017	Trichinella Ab, S	19253-4