

# ***TELEFAX***

---

**DATE:**  
**TO:**  
**FAX:**  
**FROM:** Toxoplasma Serology Laboratory  
**RE:** **SPECIMEN REQUIREMENTS AND TESTING INFORMATION** (effective 1/15/16)

THIS TRANSMISSION CONSISTS OF **16** PAGES INCLUDING THIS COVER PAGE. IF THERE ARE ANY DISCREPANCIES, PLEASE CONTACT US AT (650) 853-4828. FAX (650) 614-3292.

**Requisition forms:** **Page 2 - 5**

Testing in Pregnant Women

Testing in Newborns and Infants (1 year of age or younger)

Testing in Non-Pregnant Adults and Older Children (more than 1 year of age)

Testing in Immunocompromised Patients

**Billing Information** **Page 6**

**Fee Schedule (summary)** **Page 7**

**Test Information** **Page 8 - 10**

**Testing Schedule** **Page 11**

**PCR Instructions** **Page 12**

**PCR Specimen Requirements** **Page 13**

**Isolation Instructions** **Page 14**

**AC/HS Interpretation Criteria** **Page 15**

**Credit Card Form** **Page 16**

**Contact Information:**

Toxoplasma Serology Laboratory  
PAMF Ames Building  
795 El Camino Real  
Palo Alto, CA 94301

Phone #: (650) 853-4828  
Fax #: (650) 614-3292  
Email: toxolab@pamf.org

- Our specimen requirement for serologic testing is 3 ml of serum from a serum-separator tube or a red-top tube (minimum 0.5 ml; may be QNS for repeat testing). Please centrifuge the specimen, and *if possible*, *send serum only*. Grossly hemolyzed, icteric, lipemic, and bacterially contaminated specimens cannot be tested. Serum specimens can be sent at ambient temperature.
- THE PATIENT'S NAME AND COLLECTION DATE MUST APPEAR ON SPECIMEN LABEL. Unlabelled specimens will not be tested.

**Contents of packet and additional information are available at:**

**[WWW.PAMF.ORG/SEROLOGY](http://WWW.PAMF.ORG/SEROLOGY)**

## Testing in Pregnant Women

**Patient Information:** *Patient name and collection date must also appear on specimen label.*

Patient's Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_ Birth date: \_\_\_\_\_  
 Patient ID#: \_\_\_\_\_ Specimen type: \_\_\_\_\_ Collection date: \_\_\_\_\_  
 Physician's Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Physician's Address: \_\_\_\_\_ Fax: \_\_\_\_\_

### History (important for proper interpretation of results)

**Pregnant:** Gestational age when specimen collected (must be provided) \_\_\_\_\_

**Symptoms** None Fever Flu-like symptoms

Other \_\_\_\_\_

**Immunocompromised** N Y HIV AIDS CD4 count \_\_\_\_\_

**Risk Factor(s) (or exposure)** Ingestion of raw or undercooked meat

Other (please specify) \_\_\_\_\_

Cat feces Gardening None

**Lymphadenopathy** N Y Date of onset \_\_\_\_\_

Other \_\_\_\_\_

Location of node(s) \_\_\_\_\_

**Toxoplasma test results from other laboratory** IgG: Pos. Neg

IgM: Pos. Neg

▶Please include a copy of biopsy report if performed

**Eye disease** N Y

Other (please specify) \_\_\_\_\_

Eye findings \_\_\_\_\_

▶Please include a copy of the report if available

Bilateral Unilateral Macular involvement Peripheral retinal disease

### Recommended Tests

*For patients reported to have positive IgM results by another laboratory or suspected to have acute toxoplasmosis*

*For initial Toxoplasma serology screening or patients reported to have a negative IgM test result by another laboratory*

<b>Pregnancy Panel (16 weeks gestation or earlier):</b>	
<input type="checkbox"/> IgG (Dye test), IgM ELISA, Avidity	\$445
<input type="checkbox"/> Reflex to other tests in the Toxoplasma Panel as indicated *	\$395
<b>Pregnancy Panel (more than 16 weeks gestation):</b>	
<input type="checkbox"/> IgG (Dye test), IgM ELISA, AC/HS	\$457
<input type="checkbox"/> Reflex to Avidity, and/or other tests in the Toxoplasma Panel as indicated *	\$383
<i>Test to consider according to history and clinical manifestations:</i> (see PCR specimen requirements)	
<input type="checkbox"/> PCR in amniotic fluid (18 weeks or later in gestation)	\$398

<input type="checkbox"/> IgG (Dye test), IgM ELISA	\$289
<input type="checkbox"/> Reflex to Avidity, and/or other tests in the Toxoplasma Panel as indicated *	\$551

### Other Test Options

<b>Individual tests</b>	
<input type="checkbox"/> IgG (Dye Test)	\$144
<input type="checkbox"/> IgM ELISA	\$152
<input type="checkbox"/> IgA ELISA	\$149
<input type="checkbox"/> AC/HS	\$168
<input type="checkbox"/> Avidity; IgG (Dye test) and IgM ELISA will also be performed	\$445
<input type="checkbox"/> PCR (see PCR specimen requirements)	
<input type="checkbox"/> Solid tissues (specimen type) _____	\$430
<input type="checkbox"/> Amniotic fluid, whole blood, other body fluids (specimen type) _____	\$398
<input type="checkbox"/> Isolation of <i>T. gondii</i> (specimen type) _____	\$527

<b>Panels</b>	
<input type="checkbox"/> Toxoplasma Panel (IgG (Dye test), IgM ELISA, IgA ELISA, IgE ELISA, AC/HS)	\$684

\*Our TSL physicians will review results and select appropriate test(s) in the Toxoplasma Panel (IgG (Dye Test); IgM ELISA, IgA ELISA and IgE ELISA; AC/HS).

**Client's Billing address (MUST be included. We cannot bill the patient or insurance.)**

**Results address**

Attn:

Attn:

PO# (if required for payment):

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

E-mail:

Email:

Send to: Toxoplasma Serology Laboratory, PAMF Ames Building, 795 El Camino Real, Palo Alto, CA 94301

Tel: (650) 853-4828 Fax: (650) 614-3292 Email: [toxolab@pamf.org](mailto:toxolab@pamf.org) Web site: [www.pamf.org/serology](http://www.pamf.org/serology)

*For laboratory use only:*

Customer number: \_\_\_\_\_

Specimen condition:

Doctor number: \_\_\_\_\_

Normal Hemolyzed Icteric Lipemic

Accession number: \_\_\_\_\_

Other: \_\_\_\_\_

## Testing in Newborns and Infants (1 year of age or younger)

**Patient Information:** *Patient name and collection date must also appear on specimen label.*

Patient's Last Name: \_\_\_\_\_, First Name: \_\_\_\_\_ Birth date: \_\_\_\_\_ Gender: \_\_\_\_\_  
 Patient ID#: \_\_\_\_\_ Specimen type: \_\_\_\_\_ Collection date: \_\_\_\_\_  
 Physician's Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Physician's Address: \_\_\_\_\_ Fax: \_\_\_\_\_

### History in Newborns and Infants (important for proper interpretation of results)

*Eye findings* \_\_\_\_\_  Normal *Hydrocephaly (ventriculomegaly)*  N  Y  Ultrasound  CT scan  
*Neurological findings* \_\_\_\_\_  Normal *Cerebrospinal fluid findings* Cell count \_\_\_\_\_  
*Brain calcifications*  N  Y  Ultrasound  CT Scan Glucose \_\_\_\_\_ Protein \_\_\_\_\_  Normal  
*Transfusion history* (dates and types) \_\_\_\_\_ *Other* Please specify \_\_\_\_\_

### Maternal Serum (important for proper interpretation of results in all infants 1 year of age or younger)

Mother's name \_\_\_\_\_ Mother's date of birth \_\_\_\_\_ Mother's serum collection date \_\_\_\_\_  
 Previously tested at the Toxoplasma Serology Laboratory  IgG (Dye test), IgM ELISA \$289  
 IgG (Dye test), IgM ELISA, AC/HS \$457  Reflex to Avidity and/or to other tests in the Toxoplasma  
 Reflex to Avidity and/or to other tests in the Toxoplasma OR Panel as indicated \* \$551  
 Panel as indicated \* \$383

### Recommended Tests

#### For newborns and infants less than 6 months of age

Toxoplasma Infant Panel (IgG (Dye test), IgM ISAGA, IgA ELISA) \$438  
*Tests to consider according to history and clinical manifestations:*  
 PCR (see PCR specimen requirements)  
 Solid tissues (specimen type) \_\_\_\_\_ \$430  
 Whole blood, other body fluids (specimen type) \_\_\_\_\_ \$398

#### For infants 6 months to 1 year of age

IgG (Dye test), IgM ELISA \$289  
 Reflex to Avidity and/or to other tests in the Toxoplasma  
 Panel as indicated \* \$551

### Other Test Options

**Individual tests**  
 IgG (Dye Test) \$144  
 IgM ISAGA \$152  
 IgA ELISA \$149  
 PCR (see PCR specimen requirements)  
 Solid tissues (specimen type) \_\_\_\_\_ \$430  
 Whole blood, other body fluids (specimen type) \_\_\_\_\_ \$398  
 Isolation of *T. gondii* (specimen type) \_\_\_\_\_ \$527

### Other Test Options

**Individual tests**  
 IgG (Dye test) \$144  
 IgM ELISA \$152  
 IgA ELISA \$149  
 AC/HS \$168  
 Avidity; IgG (Dye test) and IgM ELISA will also be performed \$445  
 PCR (see PCR specimen requirements)  
 Solid tissues (specimen type) \_\_\_\_\_ \$430  
 Whole blood, other body fluids (specimen type) \_\_\_\_\_ \$398  
 Isolation of *T. gondii* from (specimen type) \_\_\_\_\_ \$527

**Panels**

Toxoplasma Panel \$684  
 (IgG (Dye test), IgM ELISA, IgA ELISA, IgE ELISA, AC/HS)

\*Our TSL physicians will review results and select appropriate test(s) in the Toxoplasma Panel (IgG (Dye Test); IgM ELISA, IgA ELISA and IgE ELISA; AC/HS).

**Client's Billing address (MUST be included. We cannot bill the patient or insurance.)**

Attn:  
 PO# (if required for payment):  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 E-mail: \_\_\_\_\_

**Results address**

Attn:  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email: \_\_\_\_\_

Send to: Toxoplasma Serology Laboratory, PAMF Ames Building, 795 El Camino Real, Palo Alto, CA 94301  
 Tel: (650) 853-4828 Fax: (650) 614-3292 Email: [toxolab@pamf.org](mailto:toxolab@pamf.org) Web site: [www.pamf.org/serology](http://www.pamf.org/serology)

*For laboratory use only:*

Customer number: \_\_\_\_\_ Specimen condition:  
 Doctor number: \_\_\_\_\_  Normal  Hemolyzed  Icteric  Lipemic  
 Accession number: \_\_\_\_\_ Other: \_\_\_\_\_

## Testing in Non-Pregnant Adults and Older Children (more than 1 year of age)

**Patient Information:** *Patient name and collection date must also appear on specimen label.*

Patient's Last Name: \_\_\_\_\_, First Name: \_\_\_\_\_ Birth date: \_\_\_\_\_ Gender: \_\_\_\_\_  
 Patient ID#: \_\_\_\_\_ Specimen type: \_\_\_\_\_ Collection date: \_\_\_\_\_  
 Physician's Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Physician's Address: \_\_\_\_\_ Fax: \_\_\_\_\_

### History (important for proper interpretation of results)

<p><b>Immunocompromised</b> <input type="checkbox"/> N <input type="checkbox"/> Y <input type="checkbox"/> HIV <input type="checkbox"/> AIDS CD4 count _____  <input type="checkbox"/> Other (please specify) _____</p> <p><b>Lymphadenopathy</b> <input type="checkbox"/> N <input type="checkbox"/> Y Date of onset _____                  Location of node(s) _____                  ▶Please include a copy of biopsy report if performed</p> <p><b>Eye disease</b> <input type="checkbox"/> N <input type="checkbox"/> Y                  Eye findings _____  <input type="checkbox"/> Bilateral <input type="checkbox"/> Unilateral <input type="checkbox"/> Macular involvement <input type="checkbox"/> Peripheral retinal disease</p> <p><b>Hepatitis</b> <input type="checkbox"/> N <input type="checkbox"/> Y Date of onset _____                  Liver Function Tests _____</p>	<p><b>Myocarditis and/or Polymyositis</b> <input type="checkbox"/> N <input type="checkbox"/> Y Date of onset _____                  Creatine Kinase (CK) _____ Myocardial enzymes _____</p> <p><b>Encephalitis</b> <input type="checkbox"/> N <input type="checkbox"/> Y Date of onset _____  <b>Other</b> Please specify _____</p> <p><b>Symptoms</b> <input type="checkbox"/> None <input type="checkbox"/> Fever <input type="checkbox"/> Flu-like symptoms  <input type="checkbox"/> Other _____</p> <p><b>Risk Factor(s) (or exposure)</b> <input type="checkbox"/> Ingestion of raw or undercooked meat  <input type="checkbox"/> Cat feces <input type="checkbox"/> Gardening <input type="checkbox"/> None <input type="checkbox"/> Other _____</p> <p><b>Toxoplasma test results from other laboratory</b> IgG: <input type="checkbox"/> Pos. <input type="checkbox"/> Neg                  IgM: <input type="checkbox"/> Pos. <input type="checkbox"/> Neg  <input type="checkbox"/> Other (please specify) _____                  ▶Please include a copy of the report if available</p>
---	---

### Recommended Tests

*For patients reported to have **positive IgM** results by another laboratory or suspected to have acute toxoplasmosis*

<input type="checkbox"/> IgG (Dye test), IgM ELISA, Avidity	\$445
<input type="checkbox"/> Reflex to other tests in the Toxoplasma Panel as indicated *	\$395
<b>OR</b>	
<input type="checkbox"/> IgG (Dye test), IgM ELISA	\$289
<input type="checkbox"/> Reflex to Avidity, and/or other tests in the Toxoplasma Panel as indicated *	\$551

*For initial Toxoplasma serology screening*

<input type="checkbox"/> IgG (Dye test), IgM ELISA	\$289
<input type="checkbox"/> Reflex to Avidity, and/or other tests in the Toxoplasma Panel as indicated *	\$551

### Other Test Options

<p><b>Individual tests</b></p> <p><input type="checkbox"/> IgG (Dye Test) \$144</p> <p><input type="checkbox"/> IgM ELISA \$152</p> <p><input type="checkbox"/> IgA ELISA \$149</p> <p><input type="checkbox"/> AC/HS \$168</p> <p><input type="checkbox"/> Avidity; IgG (Dye test) and IgM ELISA will also be performed \$445</p> <p><input type="checkbox"/> PCR (see PCR specimen requirements)</p> <p><input type="checkbox"/> Solid tissues (specimen type) _____ \$430</p> <p><input type="checkbox"/> Whole blood, other body fluids (specimen type) _____ \$398</p> <p><input type="checkbox"/> Isolation of <i>T. gondii</i> (specimen type) _____ \$527</p>	<p><b>Panels</b></p> <p><input type="checkbox"/> Toxoplasma Panel \$684                  (IgG (Dye test), IgM ELISA, IgA ELISA, IgE ELISA, AC/HS)</p>
---	---

\*Our TSL physicians will review results and select appropriate test(s) in the Toxoplasma Panel (IgG (Dye Test); IgM ELISA, IgA ELISA and IgE ELISA: AC/HS).

Client's Billing address <i>(MUST be included. We cannot bill the patient or insurance.)</i>  Attn:  PO# (if required for payment): Phone: _____ Fax: _____ E-mail: _____	Results address  Attn:  Phone: _____ Fax: _____ Email: _____
---	---

Send to: Toxoplasma Serology Laboratory, PAMF Ames Building, 795 El Camino Real, Palo Alto, CA 94301  
 Tel: (650) 853-4828 Fax: (650) 614-3292 Email: [toxolab@pamf.org](mailto:toxolab@pamf.org) Web site: [www.pamf.org/serology](http://www.pamf.org/serology)

*For laboratory use only:*

Customer number: _____ Doctor number: _____ Accession number: _____	Specimen condition: <input type="checkbox"/> Normal <input type="checkbox"/> Hemolyzed <input type="checkbox"/> Icteric <input type="checkbox"/> Lipemic Other: _____
---	---

## Testing in Immunocompromised Patients

**Patient Information:** *Patient name and collection date must also appear on specimen label.*

Patient's Last Name: \_\_\_\_\_, First Name: \_\_\_\_\_ Birth date: \_\_\_\_\_ Gender: \_\_\_\_\_  
 Patient ID#: \_\_\_\_\_ Specimen type: \_\_\_\_\_ Collection date: \_\_\_\_\_  
 Physician's Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Physician's Address: \_\_\_\_\_ Fax: \_\_\_\_\_

### History (important for proper interpretation of results)

**Category of Immunosuppression**

HIV  AIDS  CD4 count \_\_\_\_\_

**Transplant**

Bone Marrow  HSCT  
 Pre-Transplant  Post Transplant  
 Donor  Recipient

**Solid Organ Transplant**

Heart  Lung  Kidney  Liver  Pancreas  Bowel

**Immunosuppressive Drugs**

Corticosteroids  Anti-TNF Drugs  
 Other (please specify) \_\_\_\_\_

**Cancer**

Please specify Absolute Neutrophil Count \_\_\_\_\_  
 Pre-Chemotherapy  On Chemotherapy  Post Chemotherapy

**Symptoms**  None  Fever  Flu-Like symptoms

Other \_\_\_\_\_

**Hepatitis**  N  Y

**Eye Disease**  N  Y

Eye findings \_\_\_\_\_  
 Bilateral  Unilateral  Macular involvement  Peripheral retinal disease

**Encephalitis**  N  Y Date of onset \_\_\_\_\_

**Pneumonia**  N  Y Date of onset \_\_\_\_\_

**Myocarditis and/or Polymyositis**  N  Y Date of onset \_\_\_\_\_

Creatine Kinase (CK) \_\_\_\_\_ Myocardial Enzymes \_\_\_\_\_

**Toxoplasma test results from other laboratory** IgG:  Pos.  Neg.  
 IgM:  Pos.  Neg.

Other (please specify) \_\_\_\_\_

▶ Please include a copy of the report if available

### Recommended Tests

IgG (Dye test), IgM ELISA, Avidity \$445  
 Reflex to other tests in the Toxoplasma Panel as indicated\* \$395

**PCR in body fluids or tissue according to history and symptoms**  
 (see PCR specimen requirements)

Solid tissues (specimen type) \_\_\_\_\_ \$430

Whole blood, bronchoalveolar lavage fluid, vitreous fluid,  
 other body fluids (specify) \_\_\_\_\_ \$398

### Other Test Options

**Individual tests**

IgG (Dye Test) \$144  
 IgM ELISA \$152  
 IgA ELISA \$149  
 AC/HS \$168  
 Avidity: IgG (Dye test) and IgM ELISA will also be performed \$445  
 Isolation of *T. gondii* (specimen type) \_\_\_\_\_ \$527

**Panel**

Toxoplasma Panel \$684  
 (IgG (Dye test), IgM ELISA, IgA ELISA, IgE ELISA, AC/HS)

\*Our TSL physicians will review results and select appropriate test(s) in the Toxoplasma Panel (IgG (Dye Test); IgM ELISA, IgA ELISA and IgE ELISA: AC/HS).

**Client's Billing address (MUST be included. We cannot bill the patient or insurance.)**

**Results address**

Attn: \_\_\_\_\_

Attn: \_\_\_\_\_

PO# (if required for payment): \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

Email: \_\_\_\_\_

Send to: Toxoplasma Serology Laboratory, PAMF Ames Building, 795 El Camino Real, Palo Alto, CA 94301  
 Tel: (650) 853-4828 Fax: (650) 614-3292 Email: [toxolab@pamf.org](mailto:toxolab@pamf.org) Web site: [www.pamf.org/serology](http://www.pamf.org/serology)

*For laboratory use only:*

Customer number: \_\_\_\_\_  
 Doctor number: \_\_\_\_\_  
 Accession number: \_\_\_\_\_

Specimen condition:  
 Normal  Hemolyzed  Icteric  Lipemic  
 Other: \_\_\_\_\_

## Billing Information

### GENERAL

Our laboratory will process your patient's specimen only if proper billing information is provided on billing portion of the requisition. Testing will not be performed until billing information is provided.

**We cannot bill insurance or the patient directly. We can only bill the hospital, doctor or laboratory where specimen originated. Another option is for the patient to include a personal check, money order or credit card information (Visa or Mastercard) along with the specimen. These latter patients will receive a paid receipt after testing is completed. Please be aware, if your patient's payment does not clear or if there is a remaining balance, the ordering physician is responsible for all charges.**

**The Toxoplasma Serology Laboratory is a not-for-profit laboratory.**

### NEW YORK PHYSICIANS

New York State law prohibits us from billing New York State physicians directly. Therefore, all patients whose specimens are sent to us by a private physician must include a check, money order or credit card information (Visa or Mastercard). Specimens will only be held for two weeks if proper payment is not provided.

### PAYMENT TERMS

Payment terms are net **30 days**. Past due accounts may be subject to collections by an agency of the Palo Alto Medical Foundation. **Please make checks payable to the Toxoplasma Serology Laboratory at the Palo Alto Medical Foundation.**

In order to ensure that your account is properly credited, the invoice number must be included and the address for remittance must include all of the following information:

**Toxoplasma Serology Laboratory  
795 El Camino Real, Ames Building  
Palo Alto, CA 94301**

### DISCOUNT PRICING POLICY

**Panels** (see Test Information or Fee Schedule):

- IgG/IgM Toxo Panel
- Toxoplasma Pregnancy Panel (16 weeks gestation or earlier)
- Toxoplasma Pregnancy Panel (more than 16 weeks gestation)
- Toxoplasma Infant Panel (less than 6 months of age)
- Toxoplasma Panel (6 months of age or older)

**All testing performed that add up to any Panel will be charged the discounted price while a Patient's case is still open.** For urgent cases, we will attempt to contact client for authorization for further confirmatory testing (recommended by consulting physicians) twice via fax. If we do not receive authorization after two faxes, the results will be reported as final and the patient's case will be closed. **Once a final report has been generated, the client will be charged the full amount for each additional test(s).**

### INSURANCE REIMBURSEMENT

**Our laboratory is not a contracted provider for any health insurance carriers.** We cannot directly bill any insurance company for our charges. We provide the following information to assist in submitting charges for reimbursement from insurance carriers:

<b>CPT codes</b>	CPT codes are listed in our invoice
<b>ICD-10 codes</b>	Toxoplasmosis (acquired), unspecified— <b>B58.9</b> - With pneumonia— <b>B58.3</b> - Congenital, active— <b>P37.1</b> - With other organ involvement - <b>B58.89</b> Maternal - Protozoal diseases complicating pregnancy, first trimester – <b>O98.611</b> - Protozoal diseases complicating pregnancy, second trimester – <b>O98.612</b> - Protozoal diseases complicating pregnancy, third trimester – <b>O98.613</b> - Protozoal diseases complicating pregnancy, unspecified trimester – <b>O98.619</b> - Protozoal diseases complicating childbirth – <b>O98.62</b> - Protozoal diseases complicating the puerperium – <b>O98.63</b> Newborn suspected to be affected by other maternal infectious and parasitic diseases (code to be used on the newborn record only – <b>P00.2</b>
<b>Tax ID number</b>	<b>94-1156581</b>

## Fee Schedule 2016

(Effective 1/15/16)

<u>Individual tests</u>	<u>Prices / CPT codes</u>
<b>IgG (Dye Test)</b>	<b>\$144 / 86777</b>
<b>IgM ELISA (6 months of age or older)</b>	<b>\$152 / 86778</b>
<b>IgM ISAGA (less than 6 months of age)</b>	<b>\$152 / 86778</b>
<b>IgA ELISA</b>	<b>\$149 / 86777-59</b>
<b>AC/HS</b>	<b>\$168/ 86406 (2 units)</b>
<b>IgE ELISA (Offered only as part of a panel and not as a single test)</b>	<b>\$147/ 86777-59</b>
<b>Avidity (Offered only with IgG (Dye test) and IgM ELISA)</b> <b>See: Toxoplasma Pregnancy Panel (16 weeks gestation or earlier)</b>	<b>\$445 / 86777-59</b>
<b>PCR (amniotic fluid, cerebrospinal fluid, vitreous fluid, urine, whole blood, other body fluids)</b>	<b>\$398 / 87798</b>
<b>PCR (solid tissues)</b>	<b>\$430 / 87798</b>
<b>Isolation</b>	<b>\$527 / 87003</b>
<b><u>Panels</u></b>	
<b>IgG/IgM Toxo Panel</b> Includes: IgG (Dye Test), IgM ELISA	<b>\$289</b> 86777, 86778
<b>Toxoplasma Pregnancy Panel (16 weeks gestation or earlier)</b> Includes: IgG (Dye Test), IgM ELISA, Avidity	<b>\$445</b> 86777, 86778, 86777-59
<b>Toxoplasma Pregnancy Panel (more than 16 weeks gestation)</b> Includes: IgG (Dye Test), IgM ELISA, AC/HS	<b>\$457</b> 86777, 86778, 86406 (2 units)
<b>Toxoplasma Infant Panel (less than 6 months of age)</b> Includes: IgG (Dye Test), IgM ISAGA, IgA ELISA	<b>\$438</b> 86777, 86778, 86777-59
<b>Toxoplasma Panel (6 months of age or older)</b> Includes: IgG (Dye Test), IgM ELISA, IgA ELISA, IgE ELISA, AC/HS	<b>\$684</b> 86777, 86778, 86777-59, 86777-59, 86406 (2 units)

**Note: If a previously tested specimen is indicated for parallel testing with a new sample, the fee for the old sample will be \$55.00 per test. The new sample will be charged the regular fee.**

## Test Information

### IgG (Dye Test)

*Reference range:* negative <1:16; positive ≥1:16

*Specimen:* serum, CSF

*Volume:* 0.5 ml

*Transport temperature:* 2 – 8° C. (preferred); ambient or frozen (acceptable)

*CPT code:* 86777

*Fee:* \$144

*Method Reference:* Sabin AB, Feldman HA. Dyes as microchemical indicators of a new immunity phenomenon affecting a protozoan parasite (*Toxoplasma*). *Science* 108:660-663, 1948.

### IgM ELISA (for patients 6 months of age or older)

*Reference range:* negative 0.0-1.6, equivocal 1.7-1.9, positive ≥ 2.0 (serum); negative 0.0-0.3, positive ≥ 0.4 (CSF)

*Specimen:* serum, CSF

*Volume:* 0.5 ml

*Transport temperature:* 2 – 8° C. (preferred); ambient or frozen (acceptable)

*CPT code:* 86778

*Fee:* \$152

*Method Reference:* Naot Y, Remington J. An enzyme-linked immunosorbent assay for detection of IgM antibodies to *Toxoplasma gondii*: use for diagnosis of acute acquired toxoplasmosis. *J Infect Dis* 142:757-766, 1980

### IgM ISAGA (for patients less than 6 months of age)

*Reference range:* reported as negative or positive

*Specimen:* serum

*Volume:* 0.5 ml

*Transport temperature:* 2 – 8° C. (preferred); ambient or frozen (acceptable)

*CPT code:* 86778

*Fee:* \$152

*Method Reference:* Desmonts G, Naot Y, Remington JS. Immunoglobulin M immunosorbent agglutination assay for diagnosis of acute congenital and acquired toxoplasma infections. *J Clin Microbiol* 14:486-491, 1981

### IgA ELISA

*Reference range:* negative 0.0-0.9, positive ≥ 1.0 (infants);  
negative 0.0-1.4, equivocal 1.5-2.0, positive ≥ 2.1 (adults)

*Specimen:* serum

*Volume:* 0.5 ml

*Transport temperature:* 2 – 8° C. (preferred); ambient or frozen (acceptable)

*CPT code:* 86777-59

*Fee:* \$149

*Method Reference:* Stepick-Biek P, Thulliez P, Araujo F, Remington JS. IgA antibodies for diagnosis of acute congenital and acquired toxoplasmosis. *J Infect Dis* 162:270-273, 1990

### AC/HS (Differential Agglutination)

*Reference range:* reported as non-acute pattern, equivocal pattern, acute pattern or non-reactive pattern  
(refer to table, page 14)

*Specimen:* serum

*Volume:* 0.5 ml

*Transport temperature:* 2 – 8° C. (preferred); ambient or frozen (acceptable)

*CPT code:* 86406 (2 units)

*Fee:* \$168

*Method Reference:* Danneman B, Vaughn W, Thulliez P, Remington JS. Differential agglutination test for diagnosis of recently acquired infection with *Toxoplasma gondii*. *J Clin Microbiol* 28:1928-1933, 1990



## Test Information

### IgE ELISA (offered only as part of a panel and not as a single test)

*Reference range:* reported as negative, equivocal or positive

*Specimen:* serum

*Volume:* 0.5 ml

*Transport temperature:* 2 – 8° C. (preferred); ambient or frozen (acceptable)

*CPT code:* 86777-59

*Fee:* \$147

*Method Reference:* Wong S, Hadju M, Ramirez R, Thulliez P, McLeod R, Remington JS. Role of specific immunoglobulin E in diagnosis of acute toxoplasma infection and toxoplasmosis. *J Clin Microbiol* 31:2952-2959, 1993

### Avidity (IgG (Dye test) and IgM ELISA will also be performed)

*Reference range:* high avidity excludes infection within the previous 4 months

*Specimen:* serum

*Volume:* 0.5 ml

*Transport temperature:* 2 – 8° C. (preferred); ambient or frozen (acceptable)

*CPT code:* 86777-59

*Fee:* \$445 (price includes IgG (Dye test) and IgM ELISA)

*Method Reference:* Pelloux, H. et al. Determination of anti-*Toxoplasma gondii* immunoglobulin G avidity: adaption to the Vidas system (bioMérieux). *Diagn Microbiol Infect Dis* 32: 69-73, 1998

### PCR

*Reference range:* reported as “*Toxoplasma gondii* DNA detected,” “*Toxoplasma gondii* DNA not detected,” or indeterminate

*Specimen:* (refer to PCR Specimen Requirements table)

*Volume:* (refer to PCR Specimen Requirements table)

*Transport temperature:* (refer to PCR Specimen Requirements table)

*CPT code:* 87798

*Fee:* \$398 (body fluids)  
\$430 (solid tissues)

*Method References:* Grover C, Thulliez P, Remington J, Boothroyd J. Rapid prenatal diagnosis of congenital *Toxoplasma* infection by using polymerase chain reaction and amniotic fluid. *J Clin Microbiol* 28:2297-2301, 1990.

Parmley S, Goebel F, Remington JS. Detection of *Toxoplasma gondii* in cerebro-spinal fluid from AIDS patients by polymerase chain reaction. *J Clin Microbiol* 30:3000-3002, 1992

### Isolation

*Reference range:* reported as negative or positive

*Specimen:* whole blood, amniotic fluid, placenta and other tissues

**NOTE: Specimens must not be frozen or placed in formalin or other fixative. Inoculations are recommended within 48 hours of specimen collection date. Results available in six weeks.**

*Volume:* 3 ml (fluids); 1 g (solid tissues)

*Transport temperature:* 2 – 8° C.

*CPT code:* 87003

*Fee:* \$527

*Method Reference:* Remington JS, McLeod R and Desmonts G. Toxoplasmosis. In *Infectious Diseases of the Fetus and Newborn Infant*, Fifth Edition. JS Remington, JO Klein, eds. W.B. Saunders Company, Philadelphia, 2001

## Test Information

### PANELS

#### **IgG/IgM Toxo Panel:**

- *IgG (Dye Test), IgM ELISA*

*Specimen:* serum

*Volume:* 0.5 to 1.0 ml

*Transport temperature:* 2 – 8° C. (preferred); ambient or frozen (acceptable)

*CPT code:* 86777, 86778

*Fee:* \$289

#### **Toxoplasma Pregnancy Panel: (16 weeks gestation or earlier)**

- *IgG (Dye Test), IgM ELISA, Avidity*

*Specimen:* serum

*Volume:* 2.0 ml

*Transport temperature:* 2 – 8° C. (preferred); ambient or frozen (acceptable)

*CPT code:* 86777, 86778, 86777-59

*Fee:* \$445

#### **Toxoplasma Pregnancy Panel: (more than 16 weeks gestation)**

- *IgG (Dye Test), IgM ELISA, AC/HS*

*Specimen:* serum

*Volume:* 2.0 ml

*Transport temperature:* 2 – 8° C. (preferred); ambient or frozen (acceptable)

*CPT code:* 86777, 86778, 86406 (2 units)

*Fee:* \$457

#### **Toxoplasma Infant Panel: (less than 6 months of age)**

- *IgG (Dye Test), IgM ISAGA, IgA ELISA*

*Specimen:* serum

*Volume:* 1.0 ml

*Transport temperature:* 2 – 8° C. (preferred); ambient or frozen (acceptable)

*CPT code:* 86777, 86778, 86777-59

*Fee:* \$438

#### **Toxoplasma Panel: (6 months of age or older)**

- *IgG (Dye Test), IgM ELISA, IgA ELISA, IgE ELISA, AC/HS*

*Specimen:* serum

*Volume:* 2.0 ml

*Transport temperature:* 2 – 8° C. (preferred); ambient or frozen (acceptable)

*CPT code:* 86777, 86778, 86777-59, 86777-59, 86406 (2 units)

*Fee:* \$684

## Testing Schedule

### ROUTINE TEST SCHEDULE

**Serology tests:** Specimens received by noon (Pacific Time) on Monday and Wednesday will be tested that day. Verbal results are available by 3 p.m. (Pacific Time) the following day.  
*IgG (Dye Test), IgM ELISA, IgM ISAGA, IgA ELISA, IgE ELISA, AC/HS, Avidity*

Specimens received by noon (Pacific Time) on Thursday will be tested for IgG (Dye Test), IgM ELISA, and Avidity only that day. Verbal results are available by 3 p.m. (Pacific Time) the following day.

**PCR:** Specimens received by noon (Pacific Time) on Tuesday will have verbal results available Wednesday by 4 p.m. (Pacific Time). Specimens received by noon (Pacific Time) on Friday will have verbal results available Monday by 4 p.m. (Pacific Time).

**Serology/PCR** Final reports will be available approximately 5 business days from the date the sample was received except on holidays. However, reports for samples with missing billing information or requiring history or test clarification may take longer. Reports for results requiring consultation will not be available until the reporting cycle following consult completion.

To ensure the quality of results, repeat testing is sometimes required. This may delay reporting of results.

**Isolation:** Final results are available approximately six weeks from the date received.

### HOLIDAY TEST SCHEDULES

For a current list of applicable holidays and test schedule modifications, please see:  
<http://www.pamf.org/serology/schedule.html>

To ensure specimen integrity, we recommend specimens are not shipped for delivery on weekends or holidays

**Business hours:** 8 a.m. – 4:00 p.m. Pacific Time, Monday – Friday.

Closed weekends and holidays.

## PCR: Instructions

### General Instructions

*Specimen Types and Requirements:* [See PCR Specimen Requirements](#)

*Shipment:* Send specimens for PCR testing to this address:  
Toxoplasma Serology Laboratory  
**Attention: PCR**  
PAMF Ames Building  
795 El Camino Real  
Palo Alto, CA 94301

Ship each sample for PCR testing in a separate sealed bag from other samples. All samples received for PCR testing will be prepared for testing, and **will not be suitable for return**.

A **serum specimen for serologic testing** must accompany PCR test requests for any patient not recently tested in our laboratory in order for our medical consultant to interpret results. The minimum request for serologic testing must include IgG and IgM. There is an additional charge for testing this serum.

### Amniotic Fluid

It is recommended that amniocentesis for toxoplasmosis PCR be performed at a **minimum of 18 weeks gestation**. A serum sample from the mother must accompany the amniotic fluid in order for our medical consultant to interpret results, unless she has been previously tested in our laboratory, during the same pregnancy.

*Specimen:* DNA for our PCR procedure is obtained from pelleted amniotic fluid.

*Recommended volume:* 10 ml

*Shipment:* Ship amniotic fluid on wet ice or cold packs sufficient to maintain temperature of 2 – 8° C. during shipment; frozen acceptable (include enough dry ice to keep specimen frozen during shipment).

### Cerebrospinal, vitreous, or aqueous fluid:

*Specimen:* A serum sample from the patient must accompany the fluid in order for our medical consultant to interpret results, unless serum has been previously tested in our laboratory in the recent past.

*Recommended volume:* 0.5 ml ocular fluid, 1.0 ml CSF

*Shipment:* Freeze sample immediately after collection. Ship sample on dry ice by overnight courier. Include enough dry ice to keep specimen frozen during shipment.

**PCR Validated Specimens**

The following samples have been validated for testing in our laboratory:

- Amniotic fluid
- Cerebrospinal fluid (CSF)
- Ocular fluids
- Whole blood
- Urine
- Bronchoalveolar lavage (BAL)
- Solid tissues
- Serum

**PCR Reports**

PCR results will be reported as follows:

- “*Toxoplasma gondii* DNA not detected.”
- “*Toxoplasma gondii* DNA detected.”

**Preferred Conditions for Processing, Storing, and Shipping Specimens for PCR Testing<sup>1</sup>**

SPECIMEN TYPE	SPECIMEN AGE	SHIPPING CONDITIONS	MINIMUM VOLUME <sup>1</sup>	RECOMMENDED VOLUME <sup>1</sup>
<b>Amniotic fluid</b> (collected at ≥18 weeks gestation)	Up to one month when stored refrigerated; indefinite when stored frozen	2 – 8° C on ice or cold packs preferred; frozen acceptable; overnight delivery	3 ml	10 ml
<b>BAL</b>	Up to one month when stored refrigerated; indefinite when stored frozen	2 – 8° C on ice or cold packs; frozen acceptable; overnight delivery	3ml	10 ml
<b>CSF</b>	Up to one month when stored refrigerated; indefinite when stored frozen	Frozen preferred; 2 – 8° C on ice or cold packs acceptable; overnight delivery	0.4 ml	1 ml
<b>Ocular fluids</b> (vitreous and aqueous)	Up to one month when stored refrigerated; indefinite when stored frozen	Frozen preferred; 2 – 8° C on ice or cold packs acceptable; overnight delivery	0.1 ml	0.5 ml
<b>Serum</b>	Up to one month when stored refrigerated; indefinite when stored frozen	Frozen preferred; 2 – 8° C on ice or cold packs acceptable; overnight delivery	1 ml	5 ml
<b>Whole blood</b> <b>Bone marrow</b>	Up to 2 days <b>(DO NOT FREEZE)</b>	EDTA or citrate tube; 20 – 25° C preferred; overnight delivery	1 ml	5 ml
<b>Urine</b>	Up to one week when stored refrigerated; indefinite when stored frozen	2 – 8° C on ice or cold packs preferred; frozen acceptable; overnight delivery	6 ml	10 ml
<b>Solid tissues</b>	Up to 24 hours when stored refrigerated; indefinite when stored frozen; NO preservatives	Frozen preferred; 2 – 8° C on ice or cold packs acceptable; overnight delivery	25 mg	50 mg

<sup>1</sup> The Toxoplasma Serology Laboratory will test specimens that deviate from these conditions. However, sensitivity might be compromised. Please contact our laboratory at (650) 853-4828 for any questions about testing specimens that do not conform to these conditions.

## Isolation Instructions

### General Instructions

**Specimen Types and Requirements:** Whole blood (EDTA or Citrate preferred), amniotic fluid, CSF and other body fluids, placenta and other tissues

**Shipment:** Send specimens for Isolation testing to this address:  
Toxoplasma Serology Laboratory

**Attention: Isolation**  
PAMF Ames Building  
795 El Camino Real  
Palo Alto, CA 94301

Ship each sample for Isolation testing in a separate sealed bag from other samples. All samples received for Isolation testing will be prepared for testing, and **will not be suitable for return. Note: Isolation is a costly and labor intensive procedure. Once started, it may not be cancelled.**

**NOTE:** Specimens must **NOT** be frozen or placed in formalin or other fixative. Inoculation for isolation is recommended within **48 hours of specimen collection date**. Results available in six weeks.

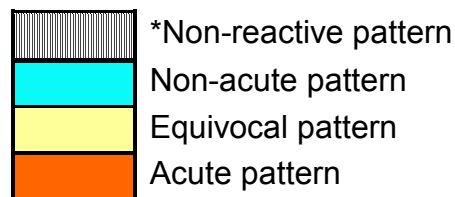
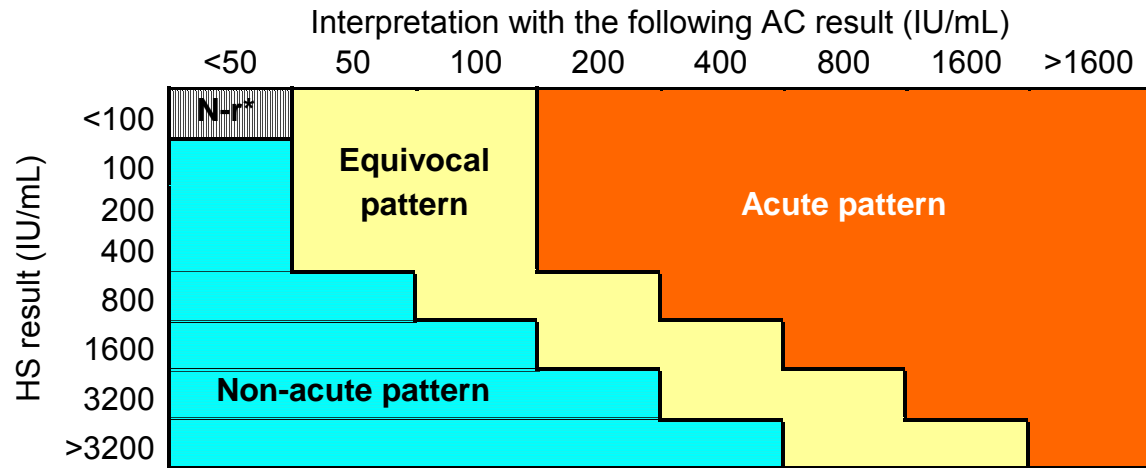
### Preferred Conditions for Processing, Storing, and Shipping Specimens for PCR Testing<sup>1</sup>

SAMPLE TYPE	STORAGE	SHIPPING CONDITIONS	MINIMUM VOLUME <sup>1</sup>	RECOMMENDED VOLUME <sup>1</sup>
Amniotic Fluid, CSF and other body fluids	Store sterilely, keep cool (NOT FROZEN) with ice bag or frozen cold packs.	2 – 8° C on ice or cold packs preferred; overnight delivery; <b>DO NOT FREEZE</b>	1 ml	3 ml
Whole Blood (EDTA, citrate, ACD tubes preferred; clot tubes (red top) accepted)	Keep cool (NOT FROZEN) with ice bag or frozen cold packs.	2 – 8° C on ice or cold packs preferred; overnight delivery; <b>DO NOT FREEZE</b>	1 ml	3 ml
Placenta	Store sterilely in sterile saline (NO FORMALIN OR OTHER PRESERVATIVE, DO NOT FREEZE). Penicillin (100 units per ml) and Streptomycin (100µgm/ml) or gentamicin (10- 40 mg/ml) should be added. Keep cool (NOT FROZEN) with ice bag or frozen cold packs.	2 – 8° C on ice or cold packs preferred; overnight delivery; <b>DO NOT FREEZE</b>	1g*	5g
Other Tissues	Store sterilely in sterile saline (NO FORMALIN OR OTHER PRESERVATIVE, DO NOT FREEZE). Keep cool (NOT FROZEN) with ice bag or frozen cold packs.	2 – 8° C on ice or cold packs preferred; overnight delivery; <b>DO NOT FREEZE</b>	1g*	5g

<sup>1</sup> The Toxoplasma Serology Laboratory may test specimens that deviate from these conditions with client authorization. However, sensitivity might be compromised. Please contact our laboratory at (650) 853-4828 for any questions about testing specimens that do not conform to these conditions.

\*Please note: lower amounts of some tissues are accepted due to accessibility and difficulty of collection

### AC/HS Interpretation Criteria



*Palo Alto Medical Foundation/Research Institute  
Toxoplasma Serology Laboratory*

**CREDIT CARD PAYMENT**

**\*PAMF only accepts Visa or Mastercard\***

**Patient Name:** \_\_\_\_\_, \_\_\_\_\_ **Customer #:** \_\_\_\_\_  
Last Name First Name

**Name of Card Holder:** \_\_\_\_\_, \_\_\_\_\_  
Last Name First Name

**Billing Address:** \_\_\_\_\_ **Contact #:** (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_  
of Card Holder

\_\_\_\_\_, \_\_\_\_\_  
City State Zip Code

**Card Type: VISA** # \_\_\_\_\_ **CVV#:** \_\_\_\_\_ **Exp. Date:** \_\_\_\_/\_\_\_\_/\_\_\_\_  
Card Number Last 3 digits behind card

**MASTERCARD** # # \_\_\_\_\_ **CVV#:** \_\_\_\_\_ **Exp. Date:** \_\_\_\_/\_\_\_\_/\_\_\_\_  
Card Number Last 3 digits behind card

**Amount of Payment:** \$ \_\_\_\_\_ **Request Receipt:** YES NO

**Invoice #:** \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

**Amount:** \_\_\_\_\_

**Total Amount Paid:** \$ \_\_\_\_\_ **Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
Initials of person handling transaction Date of Transaction  
(For Toxoplasma Serology Laboratory Employee)

The confidential medical records information contained in this facsimile message is intended only for the use of the individual named above, and privileges are not waived by virtue of having this been sent by facsimile. If the person actually receiving this facsimile or any other reader of the facsimile is not the named recipient, any use, dissemination, distribution, copying of this communication is strictly prohibited. If you have received this communication in error, please immediately notify us by telephone, (650) 853-4828, and return the original message to us via the US Postal Service. Palo Alto Medical Foundation, 795 El Camino Real/Attn: Ames Bldg., Palo Alto, CA 94301. Thank you.