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.

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- **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**

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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

Toxoplasma Serology Laboratory (TSL)

Sutter Health
Palo Alto Medical Foundation

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)

_____

Immunocompromised ❑N ❑Y ❑HIV ❑AIDS CD4 count _____

❑Other (please specify) _____

Lymphadenopathy ❑N ❑Y Date of onset _____

Location of node(s) _____

►*Please include a copy of biopsy report if performed*

Eye disease ❑N ❑Y

Eye findings _____

❑Bilateral ❑Unilateral ❑Macular involvement ❑Peripheral retinal disease

Symptoms ❑None ❑Fever ❑Flu-like symptoms

❑Other _____

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

❑Cat feces ❑Gardening ❑None

❑Other _____

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

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*	
Pregnancy Panel (16 weeks gestation or earlier):		❑IgG (Dye test), IgM ELISA	$289
❑IgG (Dye test), IgM ELISA, Avidity	$445	❑Reflex to Avidity, and/or other tests in the Toxoplasma Panel as indicated *	$551
❑Reflex to other tests in the Toxoplasma Panel as indicated *	$395		
Pregnancy Panel (more than 16 weeks gestation):			
❑IgG (Dye test), IgM ELISA, AC/HS	$457		
❑Reflex to Avidity, and/or other tests in the Toxoplasma Panel as indicated *	$383		
Test to consider according to history and clinical manifestations: (see PCR specimen requirements)			
❑PCR in amniotic fluid (18 weeks or later in gestation)	$398		

Other Test Options

Individual tests		Panels	
❑IgG (Dye Test)	$144	❑Toxoplasma Panel (IgG (Dye test), IgM ELISA, IgA ELISA, IgE ELISA, AC/HS)	$684
❑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		
❑Amniotic fluid, whole blood, other body fluids (specimen type)_____	$398		
❑Isolation of *T. gondii* (specimen type)_____	$527		

*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 Web site: www.pamf.org/serology

For laboratory use only:

*Customer number:*_____
*Doctor number:*_____
*Accession number:*_____

Specimen condition:
❑*Normal* ❑*Hemolyzed* ❑*Icteric* ❑*Lipemic*
Other: _____

Toxoplasma Serology Laboratory (TSL)

Sutter Health
Palo Alto Medical Foundation

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
*Neurological findings*_____ ❑Normal
Brain calcifications ❑N ❑Y ❑Ultrasound ❑CT Scan
Transfusion history (dates and types) _____

Hydrocephaly (ventriculomegaly) ❑N ❑Y ❑Ultrasound ❑CT scan
Cerebrospinal fluid findings Cell count _____
Glucose _____Protein _____ ❑Normal
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, AC/HS $457
❑Reflex to Avidity and/or to other tests in the Toxoplasma
Panel as indicated * $383

OR

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

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 Web site: www.pamf.org/serology

For laboratory use only:

*Customer number:*_____
*Doctor number:*_____
*Accession number:*_____

Specimen condition:
❑*Normal* ❑*Hemolyzed* ❑*Icteric* ❑*Lipemic*
Other: _____

Toxoplasma Serology Laboratory (TSL)

Sutter Health
Palo Alto Medical Foundation

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)

Immunocompromised ❑N ❑Y ❑HIV ❑AIDS CD4 count _____

❑Other (please specify) _____

Lymphadenopathy ❑N ❑Y Date of onset _____

Location of node(s) _____

►Please include a copy of biopsy report if performed

Eye disease ❑N ❑Y

Eye findings _____

❑Bilateral ❑Unilateral ❑Macular involvement ❑Peripheral retinal disease

Hepatitis ❑ N ❑Y Date of onset _____

Liver Function Tests _____

Myocarditis and/or Polymyositis ❑N ❑Y Date of onset _____

Creatine Kinase (CK) _____ Myocardial enzymes _____

Encephalitis ❑ N ❑Y Date of onset _____

Other Please specify _____

Symptoms ❑None ❑Fever ❑Flu-like symptoms

❑Other _____

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

❑Cat feces ❑Gardening ❑None ❑Other

_____

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

For patients reported to have positive IgM results by another laboratory or suspected to have acute toxoplasmosis	
❑IgG (Dye test), IgM ELISA, Avidity	$445
❑Reflex to other tests in the Toxoplasma Panel as indicated *	$395
OR	
❑IgG (Dye test), IgM ELISA	$289
❑Reflex to Avidity, and/or other tests in the Toxoplasma Panel as indicated *	$551

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

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* (specimen type)_____	$527

Panels	
❑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 Web site: www.pamf.org/serology

For laboratory use only:

*Customer number:*_____
*Doctor number:*_____
*Accession number:*_____

Specimen condition:
❑*Normal* ❑*Hemolyzed* ❑*Icteric* ❑*Lipemic*
Other: _____

Toxoplasma Serology Laboratory (TSL)

Sutter Health
Palo Alto Medical Foundation

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 (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 Web site: www.pamf.org/serology

For laboratory use only:
*Customer number:*_____
*Doctor number:*_____
*Accession number:*_____
Specimen condition:
❑*Normal* ❑*Hemolyzed* ❑*Icteric* ❑*Lipemic*
Other: _____

Sutter Health
Palo Alto Medical Foundation

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:

CPT codes	CPT codes are listed in our invoice
ICD-10 codes ****** We can provide an extended code list for your reference, however, selecting an accurate code is the provider's responsibility.******	Toxoplasmosis (acquired), unspecified—**B58.9** - With pneumonia—**B58.3** - Congenital, active—**P37.1** - With other organ involvement - **B58.89** Maternal - Protozoal diseases complicating pregnancy, first trimester – **O98.611** - Protozoal diseases complicating pregnancy, second trimester – **O98.612** - Protozoal diseases complicating pregnancy, third trimester – **O98.613** - Protozoal diseases complicating pregnancy, unspecified trimester – **O98.619** - Protozoal diseases complicating childbirth – **O98.62** - Protozoal diseases complicating the puerperium – **O98.63** Newborn suspected to be affected by other maternal infectious and parasitic diseases (code to be used on the newborn record only – **P00.2**
Tax ID number	**94-1156581**

Fee Schedule 2016

(Effective 1/15/16)

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

Panels

IgG/IgM Toxo Panel Includes: IgG (Dye Test), IgM ELISA	**$289** 86777, 86778
Toxoplasma Pregnancy Panel (16 weeks gestation or earlier) Includes: IgG (Dye Test), IgM ELISA, Avidity	**$445** 86777, 86778, 86777-59
Toxoplasma Pregnancy Panel (more than 16 weeks gestation) Includes: IgG (Dye Test), IgM ELISA, AC/HS	**$457** 86777, 86778, 86406 (2 units)
Toxoplasma Infant Panel (less than 6 months of age) Includes: IgG (Dye Test), IgM ISAGA, IgA ELISA	**$438** 86777, 86778, 86777-59
Toxoplasma Panel (6 months of age or older) Includes: IgG (Dye Test), IgM ELISA, IgA ELISA, IgE ELISA, AC/HS	**$684** 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 <u>not</u> 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. <u>In</u> 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:
IgG (Dye Test), IgM ELISA, IgM ISAGA, IgA ELISA, IgE ELISA, AC/HS, Avidity

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.

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[1]

Specimen Type	Specimen Age	Shipping Conditions	Minimum Volume[1]	Recommended Volume[1]
Amniotic fluid (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
BAL	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
CSF	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
Ocular fluids (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
Serum	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
Whole blood **Bone marrow**	Up to 2 days **(DO NOT FREEZE)**	EDTA or citrate tube; 20 – 25° C preferred; overnight delivery	1 ml	5 ml
Urine	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
Solid tissues	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

[1] **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.

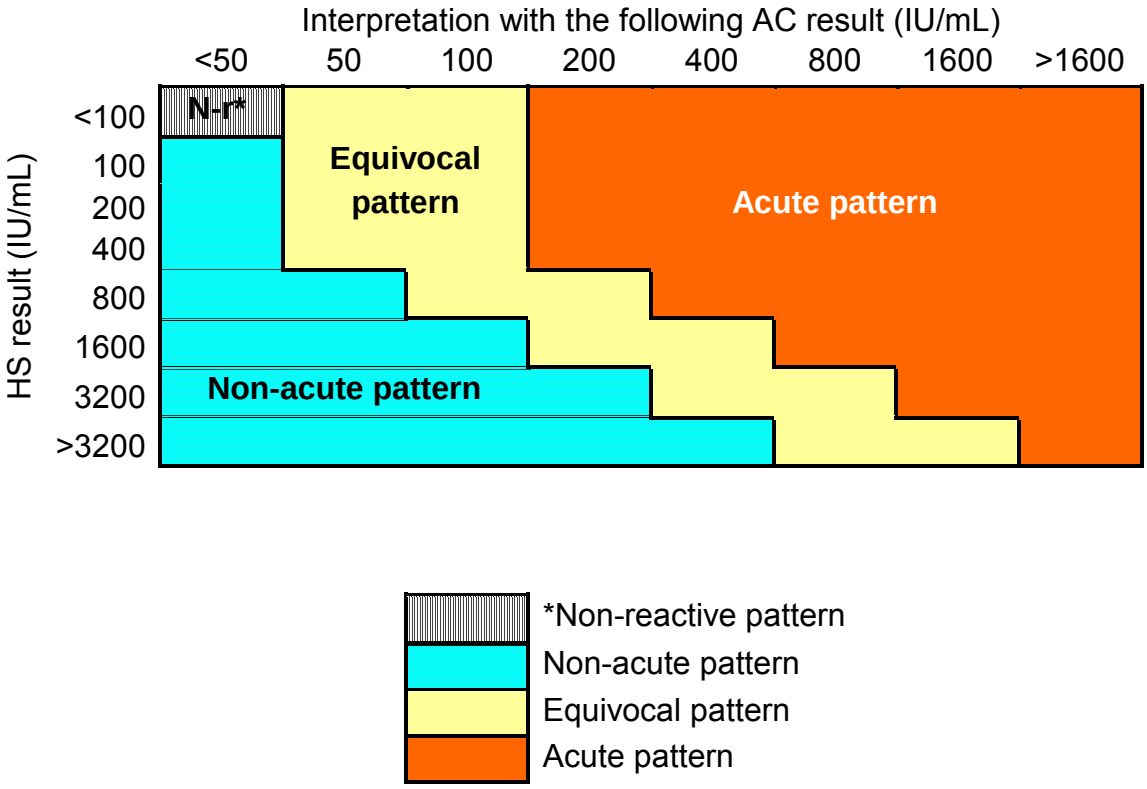
Preferred Conditions for Processing, Storing, and Shipping Specimens for PCR Testing[1]

Sample Type	Storage	Shipping Conditions	Minimum Volume[1]	Recommended Volume[1]
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; **DO NOT FREEZE**	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; **DO NOT FREEZE**	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; **DO NOT FREEZE**	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; **DO NOT FREEZE**	1g*****	5g

[1] **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



Sutter Health
Palo Alto Medical Foundation

Palo Alto Medical Foundation/Research Institute
Toxoplasma SerologyLaboratory

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:** ☐ ☐

Invoice #: , , , , ,

Amount:

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