

## Transplant Test Menu

Test Code	Test Name	Clinical Use
<b>Donor Testing</b>		
<b>Infectious Disease Testing for Donor Screening</b>		
91986	Donor, Chagas Screen	Screen for <i>Trypanosoma cruzi</i> infection in potential donors of human blood, cells, tissues, or tissue-based products; reactive results may be sufficient to consider a donor ineligible
17385(X)	Donor, <i>Chlamydia trachomatis</i> / <i>Neisseria gonorrhoeae</i> , RNA, TMA	Screen for <i>C trachomatis</i> and <i>N gonorrhoeae</i> RNA in potential donors of human cells, tissues, or tissue-based products; reactive results may be sufficient to consider a donor ineligible
17388	Donor, Cytomegalovirus Antibody, Total	Screen for CMV infection in potential donors of viable, leukocyte-rich cells or tissues
90557	Donor, Cytomegalovirus Antibody, Total with Reflex to (IgG, IgM)	Screen with reflex to diagnostic testing for CMV infection in potential donors of viable, leukocyte-rich cells or tissues
19618	Donor, Cytomegalovirus Antibody, Total with Reflex to IgM	
17375(X)	Donor, Hepatitis B Surface Antigen with Reflex to Confirmation	Screen and confirmation for acute or chronic HBV infection in potential donors of human blood, cells, tissues, or tissue-based products; reactive results may be sufficient to consider a donor ineligible
17378(X)	Donor, Hepatitis B Virus Core Total Antibody	Screen for history of HBV infection in potential donors of human blood, cells, tissues, or tissue-based products; reactive results may be sufficient to consider a donor ineligible
93305	Donor, Hepatitis C Antibody (Anti-HCV)	Screen for acute or chronic HCV infection in potential donors of human blood, cells, tissues, or tissue-based products; reactive results may be sufficient to consider a donor ineligible
19854(X)	Donor, HIV-1/HCV/HBV NAT Procleix® with Reflex to HIV-1/HCV/HBV Discriminatory	Screen for HIV-1, HCV, and HBV RNA in potential donors of human cells, tissues, or tissue-based products
17380	Donor, HIV-1/-2 plus O Antibody Screen	Screen for HIV-1 and HIV-2 infection in potential donors of human blood, cells, tissues, or tissue-based products; reactive results may be sufficient to consider a donor ineligible
94973	Donor, HIV-1/-2 plus O Antibody Screen with Reflex to Differentiation	Screen for HIV-1 and HIV-2 infection with reflex to confirmation/differentiation
17379(Z)	Donor, HTLV-I/II Antibody Screen	Screen for human T-cell lymphotropic virus (HTLV I and II) infection in potential donors of viable, leukocyte-rich cells and tissues; reactive results may be sufficient to consider a donor ineligible
93307	Donor, IVF Female Panel	Screen for <i>Chlamydia trachomatis</i> , hepatitis B and C, HIV, <i>Neisseria gonorrhoeae</i> , syphilis, and West Nile virus in potential egg donors
93306	Donor, IVF Male Panel	Screen for <i>Chlamydia trachomatis</i> , cytomegalovirus (CMV), hepatitis B and C, HIV, HTLV-I/II, <i>Neisseria gonorrhoeae</i> , syphilis, and West Nile virus in potential sperm donors

Test List

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93309	Donor, Stem Cells Donor Panel	Screen for CMV, hepatitis B and C, HIV, HTLV-I/II, syphilis, and West Nile virus in potential stem cell donors
17389	Donor, Syphilis IgG Antibody	Screen for acute or chronic <i>Treponema pallidum</i> infection in potential donors of human cells, tissues, or tissue-based products—reactive results may be sufficient to consider a donor ineligible
93308	Donor, Tissue Donor Panel Includes hepatitis C antibody, hepatitis B core total antibody, West Nile virus NAT, hepatitis B surface antigen reflex to confirm, HIV-1/HBV/HCV NAT Procleix® with reflex to HIV-1/HBV/HCV discriminatory, and HIV-1/-2 plus O antibody screen; and syphilis IgG antibody.	Screen blood donors and donors of human cells, tissues and cellular and tissue-based products for infectious diseases
19412(X)	Donor, West Nile Virus, NAT	Screen for West Nile virus RNA in potential donors of human blood, cells, tissues, or tissue-based products

**Donor and Recipient Testing**

**HLA typing**

92157	HLA A, B, C, Class I Typing, Intermediate Resolution <sup>1</sup>	Match donors and recipients for bone marrow and solid organ transplantation
92076	HLA-A, B, C, DRB1 and DQ High Resolution	
92078	HLA-A, B, C High Resolution	
15484	HLA-A, B, C Low Resolution <sup>1</sup>	
92158	HLA-A, B, Intermediate Resolution <sup>1</sup>	
15757	HLA-A, B Low Resolution <sup>1</sup>	
92044	HLA A 02:01 Determination <sup>1</sup>	
10951	HLA-A Low Resolution <sup>1</sup>	
17397	HLA A Typing, High Resolution <sup>1</sup>	
92746	HLA-B*15:02 Determination with Reflex to HLA-B High Resolution <sup>1</sup>	
10950	HLA-B Low Resolution <sup>1</sup>	
17395	HLA C High Resolution <sup>1</sup>	
15463	HLA-C Low Resolution <sup>1</sup>	
95730	HLA DPB1 Typing, High Resolution <sup>1</sup>	
19525	HLA-DQA1 Low Resolution <sup>1</sup>	
10953	HLA-DQB1 Low Resolution <sup>1</sup>	
17394	HLA DQB1 Typing, High Resolution <sup>1</sup>	
92159	HLA-DRB1, DQB1, Intermediate Resolution <sup>1</sup>	
15485	HLA DRB1,DQB1 Low Resolution <sup>1</sup>	
97112	HLA DRB1,3,4,5,DQB1, Low Resolution <sup>1</sup>	
10952	HLA-DRB1 Low Resolution <sup>1</sup>	
19526	HLA-DRB3,4,5 Low Resolution <sup>1</sup>	
17393	HLA DRB1 Typing, High Resolution <sup>1</sup>	
95732	HLA DRB3,4,5 Typing, High Resolution <sup>1</sup>	
92160	HLA DRB1 Typing, Intermediate Resolution <sup>1</sup>	
92161	HLA DRB3,4,5 Typing, Intermediate Resolution <sup>1</sup>	

Test Code	Test Name	Clinical Use
<b>HLA Antibody Screening and Identification</b>		
95731	HLA Antibody Identification, Class I <sup>1</sup>	Match donors and recipients for solid organ transplantation
97111	HLA Antibody Identification, Class II <sup>1</sup>	
95735	HLA Antibody Screen, Class I <sup>1</sup>	
95736	HLA Antibody Screen, Class II <sup>1</sup>	
<b>Recipient Testing: Pretransplant</b>		
<b>Infectious Disease Detection</b>		
403	Cytomegalovirus Antibody (IgG)	Detect past or current CMV infection; assess susceptibility to reactivation
8564	Epstein-Barr Virus Nuclear Antigen (EBNA) Antibody (IgG)	Assess risk of posttransplant lymphoproliferative disorder in transplant recipient
8474	Epstein-Barr Virus Viral Capsid Antigen (VCA) Antibody (IgG)	
8426	Epstein-Barr Virus Viral Capsid Antigen (VCA) Antibody (IgM)	
6421	Epstein-Barr Virus Antibody Panel Includes EBV capsid IgG and IgM antibodies, and EBNA IgG antibody.	
91838	Epstein-Barr Virus Antibody Panel Comprehensive Includes EBV early antigen D IgG, EBV capsid IgG and IgM, and EBNA IgG antibody.	
15447	Epstein-Barr Virus Early Antigen D Antibody (IgG)	Detect early EBV infection; assess risk of posttransplant lymphoproliferative disorder in transplant recipient
501	Hepatitis B Core Antibody, Total	Detect current or prior HBV infection
37676	Hepatitis B Core Antibody (Total) with Reflex to IgM	
8475	Hepatitis B Surface Antibody Immunity, Quantitative	Determine HBV immune status
498	Hepatitis B Surface Antigen with Reflex to Confirmation	Detect acute or chronic HBV infection
94345	Hepatitis C Antibody with Reflex to HCV RNA, PCR with Reflex to Genotype, LiPA <sup>®</sup>	
8472	Hepatitis C Antibody with Reflex to HCV RNA, Quantitative Real-Time PCR	Detect acute or chronic HCV infection
4990	Hepatitis D Virus (HDV) Antibody, Total <sup>2</sup>	Detect acute or chronic HDV infection in patients with HBV infection
34469	Hepatitis D Virus RNA, Qualitative Real-Time PCR <sup>2</sup>	Detect acute or chronic HDV co-infection in patients with HBV infection
6447	Herpes Simplex Virus 1 and 2 (IgG), Type-Specific Antibodies	Detect herpes simplex virus type 1 and 2 infection
37959(X)	Herpesvirus 8 IgG Antibody, IFA <sup>2</sup>	Detect past or current herpesvirus 8 infection
91431	HIV-1/2 Antigen and Antibodies, Fourth Generation, with Reflexes Includes HIV-1/2 antigen and antibody with reflex to HIV-1/2 antibody differentiation; if differentiation test is indeterminate or negative, reflex to HIV-1 RNA.	Detect HIV-1 and HIV-2 infection
36970	QuantiFERON <sup>®</sup> -TB Gold Plus, 1 Tube	Detect <i>Mycobacterium tuberculosis</i> -complex infection (tuberculosis disease or latent tuberculosis infection)
36971	QuantiFERON <sup>®</sup> -TB Gold Plus, 4 Tubes, Draw Site Incubated	

## Test List

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8636	Toxoplasma Antibodies (IgG, IgM)	Detect past or current <i>T gondii</i> infection, especially in heart transplant donor and recipient
4439	Varicella-Zoster Virus Antibody (IgG)	Detect past or current VZV infection; assess susceptibility to reactivation
30509	VDRL, Serum	
4112	FTA-ABS	Detect syphilis infection and assess treatment response
653	<i>Treponema pallidum</i> Antibody, Particle Agglutination	
<b>Recipient Testing: Transplant and Early Follow-up</b>		
<b>Assess Transplant</b>		
4944	Beta-2-Microglobulin, Random Urine	
38994	Beta-2-Microglobulin, Random Urine with Creatinine	Evaluate transplant viability and anticipate rejection
852	Beta-2-Microglobulin, Serum	
14619(X)	FISH, X/Y, Post Bone Marrow Transplant (BMT)	Monitor progression of bone marrow cell engraftment when bone marrow is from a donor of the opposite sex
15435(X)	Immune Cell Function	Monitor cell-mediated immune response to optimize immunosuppressant therapy
34298	Interleukin-2 Receptor Alpha Chain (IL-2Ra/CD25), Soluble <sup>3</sup>	Assess possibility of acute transplant rejection
34473	Interleukin-6 (IL-6), Serum <sup>3</sup>	Assess possibility of transplant-related complications after hematopoietic stem cell transplantation (SCT)
93917	Neopterin, Serum <sup>4</sup>	Monitor cell-mediated immunity
<b>Posttransplant</b>		
<b>Infectious Disease Detection</b>		
16046	Adenovirus DNA, Qualitative Real-Time PCR <sup>2</sup>	Detect adenovirus infection
19726(X)	Adenovirus DNA, Quantitative Real-Time PCR <sup>2</sup>	
90376	<i>Aspergillus</i> Antigen, EIA, BAL	Detect invasive aspergillosis
14950	<i>Aspergillus</i> Antigen, EIA, Serum	
18873	<i>Aspergillus</i> DNA, Qualitative Real-Time PCR <sup>2</sup> Includes <i>Aspergillus</i> spp, <i>A fumigatus</i> , and <i>A terreus</i> .	Detect invasive aspergillosis; determine infecting species ( <i>A terreus</i> or <i>A fumigatus</i> ) and species associated with resistance to amphotericin B ( <i>A terreus</i> )
34118(X)	Bacterial Identification, Aerobic	Identify aerobic bacteria causing infection
14673(X)	Bacterial Identification and Susceptibility, Aerobic	Identify aerobic bacteria causing infection and guide antibiotic therapy
17221	Bacterial 16s rDNA Sequencing <sup>2</sup>	Supplement conventional techniques for identification of atypical or difficult-to-identify bacterial pathogens
11351	BK Virus DNA, Qualitative Real-Time PCR, Plasma <sup>2</sup>	Detect BK virus infection
11274	BK Virus DNA, Quantitative Real-Time PCR, Plasma <sup>2</sup>	Detect and monitor BK virus infection
90487	<i>Candida</i> DNA, Qualitative Real-Time PCR, Serum <sup>2</sup> Includes <i>C albicans</i> , <i>C glabrata</i> , <i>C krusei</i> , <i>C parapsilosis</i> , and <i>C tropicalis</i> .	Detect presence of candidemia and identify the species ( <i>C albicans</i> , <i>C glabrata</i> , <i>C tropicalis</i> , <i>C parapsilosis</i> , <i>C krusei</i> ) to guide therapy

Test Code	Test Name	Clinical Use
19963	<i>Coccidioides</i> Antibodies to TP and F Antigens, ID	
90799	<i>Coccidioides</i> Antibody (TP Antigen), Immunodiffusion	Detect past or current <i>Coccidioides</i> infection
906	<i>Coccidioides</i> Antibody, Complement Fixation, Serum <sup>2</sup>	
11196	<i>Cryptococcal</i> Antigen, Latex Screen with Reflex to Titer	Detect current cryptococcal infection and monitor therapy
30429	<i>Cryptococcus</i> Antibody	Detect past or current cryptococcal infection
39522(X)	Culture, Fungus, Blood Identification performed at additional charge and is associated with an additional CPT code.	Detect and identify systemic or localized fungal infection
37960(X)	Culture, Fungus, Miscellaneous Source Includes identification of predominant organism. Each additional identification, and reflex to DNA probe assays for dimorphic molds, performed at additional charge.	Identify organism causing fungal infection
689	Culture, Viral, Body Fluids, Tissues Identification performed at additional charge and is associated with an additional CPT code.	Detect viral infection and identify virus
14980	Cytomegalovirus (CMV) Genotype <sup>2</sup>	Detect mutations associated with resistance to anti-CMV therapeutic drugs
2627	Cytomegalovirus, Conventional and Rapid, Culture	
10601	Cytomegalovirus DNA, Qualitative Real-Time PCR <sup>2</sup>	Detect CMV infection
17511(X)	Cytomegalovirus, Rapid Culture	
10600	Cytomegalovirus DNA, Quantitative Real-Time PCR <sup>2</sup>	Detect CMV infection and monitor response to therapy
34179	Epstein-Barr Virus DNA, Qualitative Real-Time PCR <sup>2</sup>	Identify active EBV infection
10186(X)	Epstein-Barr Virus DNA, Quantitative Real-Time PCR <sup>2</sup>	Identify active EBV infection; monitor response to therapy
39489(X)	Fungal Identification, Molds Includes reflex to nucleic acid sequencing; reflex to susceptibilities (upon request).	Identify filamentous fungi
16579	Fungal Sequencing, ITS Region <sup>2</sup>	Identify fungal pathogens that are atypical or difficult to identify with conventional means
16283	Fungitell® (1-3)-β-D-Glucan	Detect invasive fungal infection (does not detect some fungi that produce very low levels of (1-3)-β-D-glucan)
16001(X)	Herpes Virus 6 DNA, Qualitative Real-Time PCR <sup>2</sup>	Detect HHV-6 infection
19723(X)	Herpesvirus 6 DNA, Quantitative Real-Time PCR <sup>2</sup>	Detect HHV-6 infection; monitor response to therapy
19727(X)	Herpes Virus 7 DNA, Quantitative Real-Time PCR <sup>2</sup>	Detect HHV-7 infection; monitor response to therapy
15873(X)	Herpes Virus 8 DNA, Qualitative Real-Time PCR <sup>2</sup>	Detect HHV-8 infection
19798	Herpes Virus 8 DNA, Quantitative Real-Time PCR <sup>2</sup>	Detect HHV-8 infection; monitor response to therapy
90249	<i>Histoplasma capsulatum</i> DNA, Real-Time PCR <sup>2</sup>	Identify <i>H capsulatum</i> from culture isolate
91212	<i>Histoplasma</i> Galactomannan Antigen, Urine <sup>2</sup>	Detect <i>H capsulatum</i> infection
16086	Influenza A and B RNA, Qualitative Real-Time PCR <sup>2</sup>	Detect influenza A or B infection
17220(X)	JC Polyoma Virus DNA, Qualitative Real-Time PCR, Plasma <sup>2</sup>	Detect JC virus infection

Test List

Test Code	Test Name	Clinical Use
19503(X)	JC Polyoma Virus DNA, Quantitative Real-Time PCR, Plasma <sup>2</sup>	Detect and monitor JC virus infection
15062(X)	Legionella DNA, Qualitative Real-Time PCR <sup>2</sup>	Detect infection with <i>L pneumophila</i> or <i>Legionella</i> species
871(X)	<i>Mycoplasma hominis/Ureaplasma</i> Culture	Detect <i>Mycoplasma/Ureaplasma</i> infection
15498(X)	<i>Mycoplasma pneumoniae</i> DNA, Qualitative Real-Time PCR <sup>2</sup>	Detect <i>Mycoplasma pneumoniae</i> infection
91228	Parainfluenza Virus (Types 1 to 4) RNA, Qualitative Real-Time PCR <sup>2</sup>	Detect parainfluenza virus 1, 2, 3, or 4
34296(X)	Parvovirus B19 DNA, Qualitative Real-Time PCR <sup>2</sup>	Detect parvovirus B19 infection
19724(X)	Parvovirus B19 DNA, Quantitative Real-Time PCR <sup>2</sup>	Detect parvovirus B19 infection and monitor response to therapy
34286(X)	<i>Pneumocystis jirovecii</i> ( <i>P carinii</i> ), DFA	Detect <i>Pneumocystis jirovecii</i> ( <i>carinii</i> ) infection
18835	<i>Pneumocystis jirovecii</i> , Qualitative Real-Time PCR <sup>2</sup>	
18834	<i>Pneumocystis jirovecii</i> , Quantitative Real-Time PCR <sup>2</sup>	Detect <i>Pneumocystis jirovecii</i> ( <i>carinii</i> ) infection and monitor response to therapy
16047	Respiratory Syncytial Virus (RSV) RNA, Qualitative Real-Time PCR <sup>2</sup>	Detect RSV infection
37444	Respiratory Pathogen Panel Includes nucleic acid detection from adenovirus, coronavirus (229E, OC43, NL63, and HKU1), <i>Chlamydomphila pneumoniae</i> , human bocavirus, human metapneumovirus, human respiratory syncytial alpha and beta viruses, human parainfluenza viruses (1, 2, 3, and 4), influenza A (and subtype H1 and H3) virus, influenza B virus, <i>Mycoplasma pneumoniae</i> , and rhinovirus/enterovirus.	Differential diagnosis of respiratory infections caused by adenovirus, bocavirus, <i>Chlamydomphila pneumoniae</i> , coronavirus, influenza virus A and B, metapneumovirus, parainfluenza virus (types 1, 2, 3, and 4), syncytial alpha and beta viruses, <i>Mycoplasma pneumoniae</i> , or rhinovirus/enterovirus
14653(X)	Susceptibility, Aerobic Bacteria, MIC Includes amikacin, amoxicillin/clavulanic ACD, ampicillin/sulbactam, ampicillin, aztreonam, cefazolin, cefepime, cefoxitin, ceftaroline, ceftazidime, ceftriaxone, cefuroxime, chloramphenicol, ciprofloxacin, clarithromycin, clindamycin, daptomycin, doripenem, ertapenem, erythromycin, gentamicin, gentamicin 500, imipenem, levofloxacin, linezolid, meropenem, moxifloxacin, nitrofurantoin, oxacillin, penicillin, piperacillin/tazobactam, trimethoprim/sulfamethoxazole, tetracycline, ticarcillin/clavulanic ACD, tigecycline, tobramycin, and vancomycin.	Select optimal therapy for transplant patients with bacterial infections
17823	Susceptibility, Yeast, Comprehensive Panel <sup>3</sup> Includes 5-flucytosine, amphotericin B, anidulafungin, caspofungin, fluconazole, itraconazole, micafungin, posaconazole, and voriconazole.	Select optimal therapy for transplant patients with fungal infections
34451	<i>Toxoplasma gondii</i> DNA, Qualitative Real-Time PCR <sup>2</sup>	Detect <i>T gondii</i> infection
19725	<i>Toxoplasma gondii</i> DNA, Quantitative Real-Time PCR <sup>2</sup>	
3650	Varicella-Zoster Antigen, DFA	
34052(X)	Varicella-Zoster Virus DNA, Qualitative Real-Time PCR <sup>2</sup>	Detect VZV infection
19493	Varicella-Zoster Virus (VZV) DNA, Quantitative Real-Time PCR <sup>2</sup>	
14867	Viral Respiratory, Rapid Culture with Reflex <sup>2</sup> Includes reflex to virus typings (adenovirus; influenza A and B; parainfluenza 1, 2, and 3; and RSV).	Detect viral infection and identify virus

Test Code	Test Name	Clinical Use
<b>Therapeutic Drug Monitoring</b>		
<i>Immunosuppressive Therapy</i>		
8812	Cyclosporine A, Trough, Blood	Monitor immunosuppressive therapy to optimize dose, avoid toxicity, and help assure adherence to a treatment regimen
15220	Cyclosporine A Trough, LC/MS/MS, Blood	
18883	Everolimus, LC/MS/MS, Blood	
10662	Mycophenolic Acid Includes mycophenolic acid (MPA) and MPA glucuronide.	
36712	Sirolimus, LC/MS/MS <sup>2</sup>	
70007	Tacrolimus, Highly Sensitive, LC/MS/MS	
91745	Thiopurine Metabolites <sup>2</sup>	
<i>Antifungal Therapy</i>		
94092	Itraconazole <sup>2</sup>	Monitor drug levels when unexpected toxicity is encountered; optimize dosage when drug interactions are suspected
94010	Posaconazole <sup>2</sup>	
94096	Voriconazole <sup>2</sup>	

<sup>1</sup>This test was developed and its performance characteristics determined by this laboratory. It has not been cleared or approved by the U.S. Food and Drug Administration. The FDA has determined that such clearance or approval is not necessary. This test is used for clinical purposes. It should not be regarded as investigational or for research. This laboratory is certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA-88) as qualified to perform high complexity clinical laboratory testing.

<sup>2</sup>This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics. It has not been cleared or approved by the FDA. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.

<sup>3</sup>This test was performed using a kit that has not been cleared or approved by the FDA. The analytical performance characteristics of this test have been determined by Quest Diagnostics. This test should not be used for diagnosis without confirmation by other medically established means.

<sup>4</sup>This test was performed using a kit that has not been cleared or approved by the FDA. The analytical performance characteristics of this test have been determined by Laboratory Corporation of America (LabCorp). This test should not be used for diagnosis without confirmation by other medically established means.

Panel components may be ordered separately.

Reflex tests are performed at an additional charge and are associated with an additional CPT code.

Multiple test codes may be used for a test. Please refer to your local business unit or the online Test Directory ([TestDirectory.QuestDiagnostics.com](http://TestDirectory.QuestDiagnostics.com)).

