



# LABORATORY UPDATE

[www.dlolab.com](http://www.dlolab.com)

## Routine Testing

### 2010 Directory of Services - General Test Listing Change(s)

#### Redirects

- Ethyl Glucuronide and Ethyl Sulfate ..... 4
- Procalcitonin ..... 4

#### Quest Diagnostics Nichols Institute (San Juan Capistrano and Chantilly), Focus Diagnostics, Inc. and Specialty Laboratories

#### New test for diagnosis of *Campylobacter* Infection

- *Campylobacter* species Antigen, EIA ..... 5

#### New Tests

- Antimicrobial Level, Linezolid, HPLC..... 6
- Histamine Release (Chronic Urticaria) ..... 6
- *Legionella pneumophila*, Total Antibody ..... 7
- *Legionella pneumophila*, IgM..... 7
- Osteocalcin, N-MID..... 8
- Transferrin, Carbohydrate-deficient (Alcohol Use)..... 8

The CPT Codes provided in this document are based on AMA guidelines and are for informational purposes only. CPT coding is the sole responsibility of the billing party. Please direct any questions regarding coding to the payor being billed. Any Profile/panel component may be ordered separately. Reflex tests are performed at an additional charge.

**Test Changes**

- Bullous Pemphigoid Antigen (BP 180) Antibody – Update test code, result code and reference range. .... 9
- *Legionella pneumophila* Antibody (IgG), IFA – Update reference range, test code and result codes. .... 9
- Cytochrome P450 2D6 Genotype - Update test code, result code, assay category, and always message. .... 9
- Delta Aminolevulinic Acid, 24-Hour Urine - Update test code, result code, reference ranges. .... 9
- Delta Aminolevulinic Acid, Random Urine - Update test code, result code, reference ranges. .... 10
- Organic Acids, Quantitative, Random Urine, Full Panel – Update test codes, result codes, reference ranges, reporting analytes and add instruction. .... 10
- Quantiferon® TB Gold, (Incubated) - update specimen requirements, transport temperature and specimen stability. .... 12

**Discontinued Tests**

- CU Index™\* ..... 13
- *Legionella Pneumophila* AB, SEROGROUPS 1-6 ..... 13
- *Legionella pneumophila* Antibody (IGM), IFA..... 13
- Osteocalcin, Human (Bone Gla Protein, BGP)..... 13

DLO is pleased to inform you of the following new and updated laboratory testing information:

## Routine Testing

### 2010 Directory of Services - General Test Listing Change(s)

<b>Alkaline Phosphatase</b>	
<b>Effective Date:</b>	<b>Immediately</b>
Page Number:	107
Test Code:	234
Reference Range(s):	<b>16-19 Years Female 47-176 U/L</b>
<b>Bilirubin, Direct</b>	
<b>Effective Date:</b>	<b>Immediately</b>
Page Number:	144
Test Code:	285
Preferred Specimen(s):	<b>1 mL serum</b>
<b>Bilirubin, Total</b>	
<b>Effective Date:</b>	<b>Immediately</b>
Page Number:	145
Test Code:	287
Preferred Specimen(s):	<b>1 mL serum</b>
<b>Cortisol, A.M.</b>	
<b>Effective Date:</b>	<b>Immediately</b>
Page Number:	199
Test Code:	4212
Reference Range(s)	<b>0-3 Days</b> <b>Premature Infants</b> <b>(31-35 Weeks)            ≤15.0 mcg/dL</b>  <b>Term Infants            ≤14.0 mcg/dL</b> <b>4 Days-1 Month Not established</b> <b>2-11 Months            3.0-23.0 mcg/dL</b> <b>1-17 Years                3.0-25.0 mcg/dL</b> <b>&gt;17 Years                8 A.M. (7-9 A.M.) specimen: 4.0-22.0 mcg/dL</b>
<b>Cortisol P.M.</b>	
<b>Effective Date:</b>	<b>Immediately</b>
Page Number:	200
Test Code:	4213
Reference Range(s)	<b>0-3 Days</b> <b>Premature Infants</b> <b>(31-35 Weeks)            ≤15.0 mcg/dL</b>  <b>Term Infants            ≤14.0 mcg/dL</b> <b>4 Days-11 Months        Not established</b> <b>1-17 Years                3.0-17.0 mcg/dL</b> <b>&gt;17 Years                4 P.M. (3-5 P.M.) specimen: 3.0-17.0 mcg/dL</b>

<b>Helicobacter pylori Antibody (IgG), Quantitative</b>		
<b>Effective Date:</b>	<b>Immediately</b>	
Page Number:	295	
Test Code:	29408	
Reference Range(s)	<b>U/mL</b>	<b>Interpretation</b>
	<b>&lt;0.9</b>	Negative
	0.9-1.0	Equivocal
	>1.0	Positive
<b>Vitamin B<sub>6</sub> (Pyridoxine)</b>		
<b>Effective Date:</b>	<b>Immediately</b>	
Page Number:	503	
Test Code:	926	
Reference Range(s)	2-17 Years	3.0-35.0 ng/mL
	Adults	<b>2.1-21.7 ng/mL</b>

## Redirects

<b>Ethyl Glucuronide and Ethyl Sulfate</b>		
<b>Effective Date:</b>	<b>May 3, 2010</b>	
<i>Former Test Name:</i>	<i>Ethyl Glucuronide Screen, Urine</i>	
<i>Former Test Code:</i>	<i>15525</i>	
Test Code:	<b>16604</b>	
CPT Code:	<b>83789</b>	
Specimen Requirements:	<b>1 mL</b> random urine in a sterile, leak-proof container (minimum 0.5 mL) <b>Avoid contact with ethanol, disinfectants, swabs.</b>	
Specimen Stability:	<b>Room temperature, Refrigerated, and Frozen: 7 days</b>	
Reference Ranges:	<b>Ethyl Glucuronide:</b>	<b>&lt; 100 ng/mL</b>
	<b>Ethyl Sulfate:</b>	<b>&lt; 50 ng/mL</b>
Methodology:	<b>Liquid Chromatography, Tandem Mass Spectrometry</b>	
Assay Category:	Laboratory Developed Test	
Performing Site:	This test, previously performed at NMS Labs, will now be performed at Quest Diagnostics Nichols Institute, Chantilly, VA	
Additional Information:	Update test code, test name, result codes, performing site, CPT code, specimen requirements, stability, reference range, assay category and method.	

<b>Procalcitonin</b>		
<b>Effective Date:</b>	<b>May 3, 2010</b>	
<i>Former Test Name:</i>	<i>Procalcitonin,</i>	
<i>Former Test Code:</i>	<i>19825</i>	
Test Code:	<b>16265</b>	
Specimen Requirements:	<b>2 mL</b> serum	
Specimen Stability:	<b>Room temperature and Refrigerated: Unacceptable</b> <b>Frozen: 43 days</b>	
Reference Ranges:	<b>&lt;0.10 ng/mL</b>	
Methodology:	<b>Immunofluorescence Assay</b>	
Performing Site:	This test, previously performed at Mayo Medical Laboratories, will now be performed at Quest Diagnostics Nichols Institute, Chantilly.	
Additional Information:	Update performing site, test code, test name, result codes, sample volume, stability, reference range, and method.	

DLO	Page 4 of 13	April 2010
-----	--------------	------------

**QUEST DIAGNOSTICS NICHOLS INSTITUTE, (San Juan Capistrano & Chantilly),  
Focus Diagnostics, Inc. and Specialty Laboratories**

**New Test for Diagnosis of Campylobacter Infection**

Effective May 3, 2010, Quest Diagnostics will offer a new clinical tool for diagnosis of Campylobacter infection. The new test number is **16302** and test name is:

**“Campylobacter sp. Antigen, EIA”**

Premier CAMPY, developed by Meridian Diagnostics, is an enzyme immunoassay for the direct detection of *Campylobacter* antigens in human stool samples. The test is FDA cleared and provides increased sensitivity and decreased turn around time.

<b>Campylobacter species Antigen, EIA</b>		
Clinical Significance:	<i>Campylobacter</i> is one of the most common bacterial causes of diarrheal illness in the United States. Virtually all cases occur as isolated, sporadic events, not as part of large outbreaks. Active surveillance indicates that only about 15 cases out of each 100,000 persons are actually diagnosed each year. Many more cases go undiagnosed or unreported. Campylobacteriosis is estimated to affect over one million people each year occurring more frequently in the summer months. The organism is isolated from infants and young adults in higher numbers than from other age groups and occurs more frequently in males than females. Although it doesn't commonly cause death, <i>Campylobacter</i> can be attributed to approximately 100 deaths each year.	
<b>Effective Date:</b>	<b>May 3, 2010</b>	
<b>Test Code:</b>	<b>16302</b>	
CPT Code:	87449	
Specimen Requirements:	2 grams of stool placed in Cary-Blair-based transport medium	
Transport Temperature:	<b>Refrigerate (cold packs) preferred, Room Temperature acceptable</b>	
Specimen Stability	Room Temperature:	48 Hours
	Refrigerated:	96 Hours
	Frozen	30 Days
Reference Ranges:	Not Detected	
Methodology:	Enzyme Immunoassay	
Assay Category	FDA Approved/Cleared	

## New Tests

The following tests will be available through Quest Diagnostics Nichols Institute on the dates indicated below.

<b>Antimicrobial Level, Linezolid, HPLC</b>	
Clinical Significance:	Linezolid is the active component of the antibiotic Zyvox and is a member of a new class of antibiotics, the oxazolidinones, which are particularly effective against aerobic Gram-positive bacterial infections. The bloodstream level of linezolid should be monitored to ensure that adequate levels of the drug are administered, absorbed and subsequently excreted from the body to prevent drug build-up that might lead to toxic side effects.
<b>Effective Date:</b>	<b>April 5, 2010</b>
Test Code:	<b>16328</b>
CPT Code(s):	<b>80299</b>
Specimen Requirements:	<b>2 mL serum (serum separator tubes are unacceptable)</b>
Transport Temperature:	<b>Frozen</b>
Specimen Stability:	<b>Room temperature: Unacceptable Refrigerated: Unacceptable Frozen: 14 days</b>
Reference Ranges:	<b>&lt;0.01 mcg/mL</b>
Methodology:	<b>High Performance Liquid Chromatography</b>
Assay Category:	<b>Laboratory Developed Test</b>
Performing Site:	Focus Diagnostics, Inc.

<b>Histamine Release (Chronic Urticaria)</b>	
Clinical Significance:	Chronic urticaria is a common skin disorder affecting 1 to 6% of the general population. It is characterized by repeated occurrence of short-lived cutaneous wheals accompanied by redness and itching. Autoimmune urticaria is defined by the presence of a functional IgG antibody to high-affinity IgE receptor (Fc epsilon RI alpha) or IgE. These antibodies trigger mast cell basophil degranulation by the engagement of Fc epsilon receptor. Functional IgG antibody to the receptor has been identified in approximately 30-40% of patients with chronic urticaria, and anti IgE antibody has been identified in another 5-10%
<b>Effective Date:</b>	<b>May 3, 2010</b>
Test Code:	<b>16838</b>
CPT Code(s):	<b>86343</b>
Specimen Requirements:	<b>1 mL serum collected in no additive (red-top) tube Patients taking calcineurin inhibitors should stop their medication for 72 hours prior to draw.</b>
Rejection Criteria:	<b>Grossly hemolyzed, lipemic or icteric specimen; Sample other than serum; SST</b>
Transport Temperature:	<b>Room temperature</b>
Specimen Stability:	<b>Room temperature and Refrigerated: 7 days Frozen: 30 Days</b>
Reference Ranges:	<b>&lt;16 % Histamine Release</b>
Methodology:	<b>Cell Culture, Immunoassay</b>
Assay Category:	<b>Laboratory Developed Test</b>
Performing Site:	Quest Diagnostics Nichols Institute, San Juan Capistrano

<b><i>Legionella pneumophila</i>, Total Antibody</b>	
Clinical Significance:	<i>Legionella</i> can cause a broad clinical spectrum of disease, ranging from asymptomatic infection to rapidly progressive pneumonia. Legionellosis is a CDC notifiable disease and is associated with two clinically and epidemiologically distinct illnesses: (1) Legionnaires disease, which is characterized by fever, myalgia, cough, pneumonia and, (2) Pontiac fever, a milder illness without pneumonia.
Effective Date:	<b>May 3, 2010</b>
Test Code:	<b>34178</b>
CPT Code(s):	86713 (x2)
Specimen Requirements:	<b>1 mL serum (0.1 mL minimum)</b>
Transport Temperature:	<b>Room Temperature</b>
Specimen Stability:	<b>Room Temperature: 7 days</b> <b>Refrigerated: 14 days</b> <b>Frozen : 30 days</b>
Reference Ranges	<b>Legionella pneumophila serogroup 1</b> < 1:16 <b>Legionella pneumophila serogroups 2-6 and 8</b> < 1:16
Methodology:	<b>Immunofluorescence Assay (IFA)</b>
Assay Category:	<b>FDA Approved</b>
Additional Information:	Two results will be provided for this assay; total antibody for serogroup 1 and total antibody for serogroups 2-6, and 8.

<b><i>Legionella pneumophila</i>, IgM</b>	
Effective Date:	<b>May 3, 2010</b>
Test Code:	<b>30793</b>
CPT Code(s):	86713
Specimen Requirements:	<b>1 mL serum (0.1 mL minimum)</b>
Transport Temperature:	<b>Room Temperature</b>
Specimen Stability:	<b>Room Temperature: 7 days</b> <b>Refrigerated: 14 days</b> <b>Frozen : 30 days</b>
Reference Ranges	<b>&lt; 1:16</b>
Methodology:	<b>Immunofluorescence Assay (IFA)</b>
Assay Category:	<b>Laboratory Developed Test</b>
Performing Site:	Focus Diagnostics, Inc.

<b>Osteocalcin, N-MID</b>	
Clinical Significance:	Osteocalcin, the most abundant non-collagen protein in bone matrix, is a bone-specific, calcium binding protein. Serum osteocalcin levels are related to the rate of bone turnover in various disorders of bone metabolism, eg, osteoporosis, primary and secondary hyperparathyroidism, and Paget's disease.
Effective Date:	May 10, 2010
Test Code:	16322
CPT Code(s):	83937
Specimen Requirements:	<b>1 mL serum</b> Collect blood in a red-top vacutainer containing no additives. Allow blood to clot at room temperature (20-26 degrees C) and centrifuge immediately to separate the serum from the cells. Freeze as soon as possible.
Rejection Criteria:	Hemolysis; heat inactivated specimens, specimens stabilized with azide; patient administered with biotin within 8 hours.
Transport Temperature:	Frozen
Specimen Stability:	Room Temperature: Unacceptable Refrigerated: 24 hours Frozen 21 days
Reference Ranges:	Females: 8-32 ng/mL Males: 9-38 ng/mL
Methodology:	Electrochemiluminescence (ECLIA)
Assay Category:	FDA Approved/Cleared
Performing Site:	Quest Diagnostics Nichols Institute

<b>Transferrin, Carbohydrate-deficient (Alcohol Use)</b>	
Clinical Significance:	Heavy alcohol use, (defined as >4 or 5 beverages per day for two weeks or more), are commonly associated with elevated CDT levels as are certain liver diseases such as primary biliary cirrhosis and chronic active hepatitis and in some patients with genetic D variants of transferrin.
Effective Date:	May 3, 2010
Test Code:	16985
CPT Code:	82373, 84466
Specimen Requirements:	1 mL serum (minimum 0.5 mL) Fasting preferred. Serum samples must be fully coagulated, centrifuge within 1 hour of collection, and must not contain any particles or traces of fibrin after centrifugation for 10 minutes at 15,000 x g. Transfer serum to a clean, plastic, screw-capped vial.
Rejection Criteria:	Grossly hemolyzed, grossly lipemic, and grossly icteric
Transport Temperature:	Refrigerated
Specimen Stability:	Room temperature: 48 hours Refrigerated: 7 days Frozen: 30 days
Reference Ranges:	Transferrin: 188-341 mg/dL % CDT: <2.5 % CDT: 28.1 – 76.0 mg/L
Methodology:	Nephelometry
Assay Category:	FDA Approved/Cleared
Performing Site:	Quest Diagnostics Nichols Institute, Chantilly, VA.

## Test Changes

<b>Bullous Pemphigoid Antigen (BP 180) Antibody</b>			
Clinical Significance:	To detect the presence of auto antibodies specific to BP 180 in a patient's sera as an aid to diagnose Bullous pemphigoid.		
<b>Effective Date:</b>	<b>May 10, 2010</b>		
Test Code:	<b>16034</b>		
Reference Ranges:	<b>Negative:</b>	<b>&lt;=14</b>	<b>U/MI</b>
	<b>Positive:</b>	<b>&gt;=15</b>	<b>U/mL</b>
Performing Site:	Quest Diagnostics Nichols Institute, San Juan Capistrano		
Additional Information:	Update reference range.		

<b>Legionella pneumophila Antibody (IgG), IFA</b>	
Clinical Significance:	Legionnaire's disease is associated with pneumonia and other illnesses. Seroconversion may be delayed and cross-reactivity with other organisms limits the application of serology in clinical care.
<b>Effective Date:</b>	<b>May 10, 2010</b>
Test Code:	<b>36580</b>
Reference Ranges:	<b>&lt; OR = 64 (Unexposed)</b>
Performing Site:	Quest Diagnostics Nichols Institute, San Juan Capistrano
Additional Information:	Update reference range.

<b>Cytochrome P450 2D6 Genotype</b>	
Clinical Significance:	The CYP2D6 gene product is responsible for the metabolism of many major drug groups including many antidepressants, neuroleptics, and cardiovascular drugs. Cytochrome P450 2D6 Genotype detects eight alleles associated with the poor metabolizer phenotype (PM). Patients with duplication of the CYP2D6 gene are ultraextensive metabolizers (UEM). Approximately 5-10% of Caucasian individuals express PM phenotype and the same percentage the UEM phenotype.
<b>Effective Date:</b>	<b>May 24, 2010</b>
Test Code:	<b>10490</b>
Assay Category:	<b>Laboratory Developed Test</b>
Performing Site:	Quest Diagnostics Nichols Institute, San Juan Capistrano
Additional Information:	Update assay category, and always message.

<b>Delta Aminolevulinic Acid, 24-Hour Urine</b>	
Clinical Significance:	In conjunction with porphobilinogen analysis, a first step in the differential diagnosis of various porphyrias.
<b>Effective Date:</b>	<b>May 24, 2010</b>
Test Code:	<b>219</b>
Reference Ranges:	<b>&lt;4.5 mg/24h</b>
Performing Site:	Quest Diagnostics Nichols Institute
Additional Information:	Update reference ranges.

<b>Delta Aminolevulinic Acid, Random Urine</b>			
<b>Effective Date:</b>	<b>May 24, 2010</b>		
<b>Test Code:</b>	<b>6301</b>		
<b>Reference Ranges:</b>	1-8 years: 9-17 years: > or =18 years	<b>Females:</b> <b>Males:</b>	2.3-6.2 1.5-5.3 <5.4 <1.8 mg/g creat mg/g creat <b>mg/g creat</b> <b>mg/g creat</b>
<b>Performing Site:</b>	Quest Diagnostics Nichols Institute		
<b>Additional Information:</b>	Update reference ranges.		

<b>Organic Acids, Quantitative, Random Urine, Full Panel</b>				
<b>Clinical Significance:</b>				
<b>Effective Date:</b>	<b>May 24, 2010</b>			
<b>Test Code:</b>	<b>38067</b>			
<b>Instruction:</b>	<b>Patient age is required for correct reference range.</b> A prompted analyte is being added to record this information.			
<b>Reference Ranges:</b>	<b>See table below (mmol/mol Creatinine)</b>			
Analyte Name	<b>0 – 30 days</b>	<b>31 days – 23.9 months</b>	<b>2 – 17.9 years</b>	<b>Adults (≥18 years)</b>
Interpretation	N/A	N/A	N/A	N/A
<b>Age (Prompted Analyte)</b>	N/A	N/A	N/A	N/A
Lactic	<b>42 – 240</b>	<b>38 – 186</b>	<b>≤208</b>	<b>16 – 93</b>
Glycolic	<b>40 – 268</b>	<b>58 – 254</b>	<b>≤306</b>	<b>43 – 151</b>
2-Hydroxybutyric	<b>≤4</b>	<b>≤10</b>	<b>≤10</b>	<b>≤1</b>
3-Hydroxypropionic	<b>4 – 60</b>	<b>4 – 60</b>	<b>2 – 42</b>	<b>3 – 16</b>
3-Hydroxyisobutyric	<b>≤134</b>	<b>28 – 192</b>	<b>≤156</b>	<b>16 – 130</b>
3-Hydroxybutyric	<b>≤6</b>	<b>≤10</b>	<b>≤10</b>	<b>≤7</b>
2-Hydroxyisovaleric	<b>≤10</b>	<b>≤8</b>	<b>≤8</b>	<b>2-5</b>
2-Methyl-3-hydroxybutyric	<b>≤6</b>	<b>≤14</b>	<b>≤14</b>	<b>≤11</b>
3-Hydroxyisovaleric	<b>≤42</b>	<b>6 – 42</b>	<b>≤42</b>	<b>5 – 14</b>
Methylmalonic	<b>≤6</b>	<b>≤6</b>	<b>≤4</b>	<b>≤3</b>
2-Ethyl-3-hydroxypropionic	<b>≤12</b>	<b>≤16</b>	<b>≤12</b>	<b>≤12</b>
2-Hydroxyisocaproic	<b>0</b>	<b>0</b>	<b>≤2</b>	<b>≤1</b>
3-Hydroxyvaleric	<b>0</b>	<b>0</b>	<b>≤1</b>	<b>≤1</b>
2-Hydroxy-3-methylvaleric	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Octanoic	<b>≤8</b>	<b>≤8</b>	<b>≤4</b>	<b>≤1</b>
Ethylmalonic	<b>≤20</b>	<b>≤20</b>	<b>≤14</b>	<b>≤8</b>
Phenylacetic	<b>≤2</b>	<b>≤2</b>	<b>≤2</b>	<b>≤2</b>
Succinic	<b>4 – 124</b>	<b>8 – 102</b>	<b>1 – 60</b>	<b>2 – 12</b>
Methylsuccinic	<b>≤8</b>	<b>2 – 8</b>	<b>≤10</b>	<b>1 – 4</b>
Uracil	<b>≤30</b>	<b>6 – 76</b>	<b>≤64</b>	<b>3 – 33</b>
Fumaric	<b>≤62</b>	<b>≤26</b>	<b>≤10</b>	<b>≤5</b>
Propionylglycine	<b>0</b>	<b>≤2</b>	<b>≤2</b>	<b>≤1</b>
5-Hydroxyhexanoic	<b>≤12</b>	<b>≤10</b>	<b>≤4</b>	<b>≤3</b>
Glutaric	<b>≤8</b>	<b>≤12</b>	<b>≤6</b>	<b>1 – 3</b>
3-Methylglutaric	<b>≤2</b>	<b>≤4</b>	<b>≤3</b>	<b>≤2</b>
3-Methylglutaconic	<b>≤10</b>	<b>2 – 12</b>	<b>≤10</b>	<b>1 – 10</b>
Glutaconic	<b>0</b>	<b>0</b>	<b>≤4</b>	<b>≤3</b>
Isovalerylglycine	<b>0</b>	<b>≤8</b>	<b>≤6</b>	<b>≤4</b>
Glyoxylic	<b>≤10</b>	<b>≤6</b>	<b>≤2</b>	<b>0</b>
Malic	<b>4 – 88</b>	<b>4 – 42</b>	<b>1 – 20</b>	<b>1 – 10</b>

3-Hydroxyadipic	≤16	≤20	≤18	2 – 8
Adipic	2 – 28	4 – 38	1 – 12	1 – 5
Pyruvic	4 – 28	4 – 18	1 – 14	2 – 9
5-Oxoproline	22 – 76	34 – 128	11 – 108	15 – 59
2-Oxoisovaleric	0	0	0	0
3-Methylcrotonylglycine	0	0	0	0
Tiglylglycine	0	0	0	≤2
Mevalonic	≤2	≤2	≤2	≤1
2-Hydroxyglutaric	4 – 44	4 – 36	2 – 24	2 – 8
3-Hydroxyglutaric	≤6	≤6	≤4	≤4
Acetoacetic	≤2	≤2	≤4	≤5
Phenyllactic	≤2	0	0	0
3-Hydroxy-3-methylglutaric	4 – 38	2 – 24	1 – 13	≤5
2-Oxo-3-methylvaleric	0	0	≤2	≤3
2-Oxoisocaproic	0	0	≤1	≤4
Hexanoylglycine	0	0	0	0
4-Hydroxyphenylacetic	2 – 124	6 – 182	3-42	4 – 24
2-Hydroxyadipic	≤4	≤4	≤2	≤1
Octenedioic	≤4	≤4	≤2	≤1
Suberic	≤8	≤12	≤7	≤2
Aconitic	26 – 168	36 – 192	9 – 174	11 – 76
Orotic	≤4	≤4	≤4	≤1
Phenylpropionylglycine	0	0	0	0
Homovanillic	4 – 20	4-20	1 – 14	1 – 5
Isocitric	52 – 350	64 – 364	22 – 343	41 – 122
Citric	68 – 1580	144 – 1466	76 – 1309	143 – 765
Methylcitric	≤4	≤6	≤6	≤2
VMA	2 – 14	2 – 14	1 – 8	1 – 3
Sebacic	≤4	≤6	≤2	≤1
Decadienedioic	0	0	0	0
4-Hydroxyphenyllactic	≤20	≤8	≤3	≤2
2-Oxoglutaric	≤892	≤632	≤137	≤68
Phenylpyruvic	0	≤2	≤2	≤2
2-Oxoadipic	0	0	0	0
Hydroxydecanedioic	0	0	0	0
Dodecanedioic	0	0	0	0
N-Acetyltyrosine	≤4	≤4	≤1	≤1
Suberylglycine	0	0	0	0
4-Hydroxyphenylpyruvic	≤20	≤8	≤3	≤1
Succinylacetone	0	0	0	0
Malonic	≤6	0	≤5	≤2
4-Hydroxybutyric	0	0	0	0
Isobutyrylglycine	≤4	≤2	≤1	≤2
2-Methylbutyrylglycine	0	≤4	≤2	≤2
4-Hydroxycyclohexaneacetic	0	0	≤2	≤1
2-Methylacetoacetic	0	0	0	0
N-Acetylaspartic	8 – 84	12 – 72	≤42	≤15
3-Hydroxysebacic	≤32	≤42	≤10	≤3
Additional Information:	Update reference ranges add reporting analytes and add instruction.			

<b>Quantiferon® TB Gold, (Incubated)</b>	
Clinical Significance:	QuantiFERON®-TB Gold IT is an indirect test for M. tuberculosis infection (including disease) and is intended for use in conjunction with risk assessment, radiography and other medical and diagnostic evaluations.
Effective Date:	<b>May 3, 2010</b>
Test Code:	<b>16603</b>
CPT Code(s):	86480
Specimen Requirements:	<p><b>Instructions:</b></p> <ol style="list-style-type: none"> <li>1. For each patient, collect 1 ml of blood by venipuncture directly into each of the three (3) unique Quantiferon®TB Gold IT blood collection tubes (Nil, TB Antigen, Mitogen). Under or overfilling of the tubes may lead to erroneous results.</li> <li>2. Mix the tubes by <u>shaking vigorously</u> for 5 seconds and label tubes appropriately.</li> <li>3. Incubate the three (3) tubes upright at 36-38 degrees C for 16 to 24 hours.</li> <li>4. Following incubation either: <ol style="list-style-type: none"> <li>A. Immediately transport the three (3) transport tubes to Quest Diagnostics between 2 and 27 degrees C. Samples will be stable for 72 hours at 2-27 degrees C (room temperature or refrigerated).</li> <li style="text-align: center;">OR</li> <li>B. Centrifuge each of the three (3) incubated collection tubes for 15 minutes at 2000 to 3000 RCF (g). Label with patient name, identification number, and date of collection. Deliver to Quest Diagnostics at 2-8 degrees C. Samples will be stable for 28 days at 2-8 degrees C (refrigerated).</li> </ol> </li> </ol>
Transport Temperature:	<b>See Specimen Requirements instructions above.</b>
Specimen Stability:	<b>See Specimen Requirements instructions above. Frozen samples are unacceptable.</b>
Additional Information:	Update specimen requirements, transport temperature and specimen stability. Please contact your local Quest Diagnostics facility for logistics support and guidance on this assay.

## Discontinued Tests

<b>CU Index™*</b>	
<b>Effective Date:</b>	<b>May 3, 2010</b>
Test Code:	19841
Performing Site:	IBT Reference Laboratory
Additional Information:	This test will be discontinued. The recommended alternative is 16838 - Histamine Release (Chronic Urticaria) in the New Tests section.

<b><i>Legionella Pneumophila</i> AB, Serogroups 1-6</b>	
<b>Effective Date:</b>	<b>May 3, 2010</b>
Test Code:	<b>6687</b>
Additional Information:	Please consider using code 34178 (see related 34178 changes in this document).

<b><i>Legionella pneumophila</i> Antibody (IGM), IFA</b>	
<b>Effective Date:</b>	<b>May 3, 2010</b>
Test Code:	<b>30268</b>
Additional Information:	Orders for this test on or after May 3, 2010 will be pointed to test code 30793 (see related 30793 offering in this document).

<b>Osteocalcin, Human (Bone Gla Protein, BGP)</b>	
<b>Effective Date:</b>	<b>May 10, 2010</b>
Test Code:	5586
Performing Site:	Quest Diagnostics Nichols Institute
Additional Information:	This test will be discontinued. The recommended alternative is 16322 - Osteocalcin, N-MID in the New Tests section.