Legacy Laboratory Services

New Reference Ranges for Anti-Cyclic Citrullinated Peptide Antibody

November 2010

On November 15, 2010, Legacy Laboratory Services will add anti-cyclic citrullinated peptide antibody (anti-CCP) to the in-house testing menu. Anti-CCP is a tool to aid in the diagnosis of rheumatoid arthritis (RA).

Results obtained with different assay methods or kits cannot be used interchangeably. The new automated method has several differences compared to the previous method.

Anti-CCP has a diagnostic specificity for rheumatoid arthritis of 96%.

Parameter	Legacy Laboratory Services (New Method)	Referral Laboratory (Previous Method)	
Method	Fluoroenzymatic Immunoassay	Enzyme-linked Immunosorbent Assay	
Reference Range	< 7 Negative 7-10 Equivocal >10 Positive	< 20 Negative 20-39 Weak Positive 40-59 Moderate Positive >59 Strong Positive	
Stability: Ambient	8 hours	2 days	
Refrigerated	48 hours	2 weeks	
Frozen	1 month (do not freeze- thaw more than once)	1 year (do not freeze- thaw more than once)	

Until recently, the early diagnosis of RA relied chiefly on clinical manifestations and the serological marker, rheumatoid factor. Rheumatoid factor is rather sensitive for RA (50-90%), but has limited specificity (70-90%). ^{1,2} In comparison, anti-CCP has a diagnostic sensitivity for RA of 68% and a diagnostic specificity of 96%. ^{1,3} Additionally, anti-CCP may have prognostic value with respect to the development of radiographic joint damage. ^{4,5}

For more information, please contact client services at (503) 413-1234.

For technical information, contact:

Danelle Beaudoin, PhD Scientific Director, Chemistry Legacy Laboratory Services (503) 413-5024



Juan Millan, MD Clinical Vice President Legacy Laboratory Services (503) 413-5049

Collection Guidelines for Legacy Laboratory Services

Frozen (≤ -20 °C)

	Collect	Serum, one 5.0 mL gold (SST) or 7.0 mL red top tube		
	Handling	Allow serum to clot completely at room temperature (minimum: 30 minutes). Centrifug separate serum from cells ASAP.		
	Preferred Volume	1.0 mL serum		
	Minimum Volume	0.5 mL serum		
	Transport	Refrigerated (2-8°C), if the specimen will be delayed more than 48 hours, freeze at or below20°C		
	Rejection Criteria	Grossly hemolyzed specimens, plasma and samples that have undergone more than one freeze-thaw cycle.		
		Temperature	Time Period Plasma	
		Ambient (20-25 °C)	8 hours	
Stability	Stability	Refrigerated (2-8 °C)	48 hours	

References

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1 month (do not freeze-thaw more than once

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- Schellekens GA, et.al. (2000) The diagnostic properties of rheumatoid arthritis antibodies recognizing a cyclic citrullinated peptide. Arthritis Rheum 43, 155-153.
- Van Gaalen, et.al. (2004) Autoantibodies to cyclic citrullinated peptides (CCP) predict progression to rheumatoid arthritis in patients with undifferentiated arthritis: a prospective cohort study. Arthritis Rheum 50, 709-715.
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