

ADENOSINE DEAMINASE (ADA) ASSAY

Dual Vial Liquid Stable

Diazyme's Adenosine Deaminase (ADA) assay is a cost effect liquid stable test system that can be run either manually or on open automated chemistry systems. Unlike other assay methods Diazyme's ADA assay has been found to show virtually no ammonia interference.⁵ Multiple published studies in major journals worldwide have highlighted the excellent accuracy, precision and reliability of the Diazyme enzymatic Non-Giusti method in serum, heparinized plasma, plural effusion, pericardial effusion and CSF fluids.¹⁻⁴ Recent reports state that the accuracy of the ADA assay was similar to that of the IFN- γ assay in differentiating TB from non-TB ascites. Because both material and human costs of the ADA assay are far less than those of the IFN- γ assay, the former is probably the most appropriate diagnostic test for analysis of peritoneal fluid in resource-limited settings.⁶

DIAZYME ADA ASSAY ADVANTAGES

- Liquid stable format requires no reagent preparation saving time and reducing sample handling
- Fast test results for a rapid turnaround time
- Calibrator conveniently included with kit
- Wide range of instrument parameters available for facilitating and simplifying implementation

REGULATORY STATUS

USA: For Research Use Only



AVAILABLE INSTRUMENT SPECIFIC PACKAGING

- Roche
- Hitachi



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ASSAY SPECIFICATIONS

Method	Enzymatic (Colorimetric / Kinetic)
Sample Type & Volume	<ul style="list-style-type: none"> Serum Plasma - Li-heparin <p>Sample Volume 5 µL</p>
Method Comparison	<p>N = 15</p> <p>y-intercept = -0.4219</p> <p>Slope = 1.0688</p> <p>R2 = 0.9894</p>
Linearity	0 to 200 U/L
LOD	0.0333 U/L
Calibration Levels	1-Point Calibration
Reagent On-Board Stability	<p>Opened:</p> <p>Four weeks on board analyzer</p>

ADA Assay Procedure*



*Analyzer Dependent

Parameter questions for ADA Assay should be addressed to Diazyme technical support. Please call 858.455.4768 or email support@diazyme.com

1. Feres, M. C., M. C. Martino, S. Maldjian, F. Batista, A. Gabriel, and S. Tufik. "Automatized Adenosine Deaminase Activity Determination in Pleural Fluid and Cerebral Spinal Fluid." OASIS - Online Abstract Submission and Invitation System. Coe-Truman Technologies, Inc., 24 July 2008. Web. 13 June 2016.
2. Delacour, Hervé, Christophe Sauvanet, Franck Ceppa, and Pascal Burnat. "Analytical Performances of the Diazyme ADA Assay on the Cobas® 6000 System." *Clinical Biochemistry* 43.18 (2010): 1468-471. Web.
3. Song, David; Lun, Andrea R and Chiu, Weldon. Diazyme Adenosine Deaminase in the Diagnosis of Tuberculous Pleural Effusion: Method Evaluation and Clinical Experiences in a New Zealand Population [online]. *New Zealand Journal of Medical Laboratory Science*, Vol. 64, No. 1, Apr 2010: 11-13. Availability: <<http://search.informit.com.au/documentSummary;dn=232037372692385;res=IELHEA>> ISSN: 1171-0195. [cited 14 Jun 16].
4. Morisson, Patrizio, & Neves, Denise Duprat. (2008). Evaluation of adenosine deaminase in the diagnosis of pleural tuberculosis: a Brazilian meta-analysis. *Jornal Brasileiro de Pneumologia*, 34(4), 217-224. <https://dx.doi.org/10.1590/S1806-37132008000400006>
5. Delacour, Hervé, Aurore Bousquet, Eléonore Fontan, and Franck Ceppa. "Ammonia Does Not Interfere with the Diazyme Adenosine Deaminase Test." *Clinical Chemistry and Laboratory Medicine* 51.10 (2013): n. pag. Web.
6. Sharma, S.k., Mohammad Tahir, Alladi Mohan, Duncan Smith-Rohrberg, Hemant K. Mishra, and R.m. Pandey. "Diagnostic Accuracy of Ascitic Fluid IFN-γ and Adenosine Deaminase Assays in the Diagnosis of Tuberculous Ascites." *Journal of Interferon & Cytokine Research* 26.7 (2006): 484-88. Web.

ASSAY PRECISION

The precision of the Diazyme Adenosine Deaminase Assay was evaluated on the Cobas Mira instrument according to a modified Clinical Laboratory Standards Institute EP5-A guideline. In the study, two serum specimens containing 11 U/L and 30 U/L ADA were tested with 2 runs per day with duplicates over 15 working days.

	Within Run Precision		Run To Run Precision	
	11 U/L	30 U/L	11 U/L	30 U/L
No. of Data Points	30	30	30	30
Mean (U/L)	11.11	30.74	9.63	29.62
SD	0.16	0.45	0.47	0.59
CV%	1.47	1.45	4.90	2.00

ASSAY INTERFERENCE

Assay is not affected by the following:

Serum Bilirubin:	up to 30 mg/dL
Hemoglobin:	up to 200 mg/dL
Triglycerides:	up to 750 mg/dL
Ascorbic acid:	up to 4 mg/dL

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