ADENOSINE DEAMINASE (ADA) ASSAY

Adenosine Deaminase (ADA) Assay is for determination of ADA activity in serum, plasma, pleural fluid, and cerebrospinal fluid samples.

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. Recent reports state that the accuracy of the ADA assay was similar to that of the IFN-y 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-y assay, the former is probably the most appropriate diagnostic test for analysis of peritoneal fluid in resource-limited settings.[1]

DIAZYME ADA ASSAY ADVANTAGES

- Diazyme's ADA assay has been found to show virtually no ammonia interference.[2]
- 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.[3-6]
- Fast test results (10 minutes) for a rapid turnaround time
- Liquid stable format requires no reagent preparation
- Wide range of instrument parameters available for simplifying implementation

REGULATORY STATUS

EU: CE IVD;

USA: For Research Use Only

DIAZYME
Innovations in Clinical Diagnostics

ADENOSINE DEAMINASE (ADA) ASSAY

Dual Vial
Liquid Stable

ASSAY SPECIFICATIONS

Method	Enzymatic (Colorimetric / Kinetic)
Sample Type & Volume	• Serum • Plasma - Li-heparin Sample Volume 5 µL
Method Comparison	N = 15 y-intercept = -0.4219 Slope = 1.0688 R^2 = 0.9894
Linearity	0 to 200 U/L
LOD	0.0333 U/L
Calibration Levels	1-Point Calibration
Reagent On-Board Stability	Opened: Four weeks when stored at 2-8°C

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

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2. *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.*
3. *Feres, M. C., M. C. Martino, S. Maldjian, F. Batista, A. Gabriel, andS. 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.*
4. *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.*
5. *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].*
6. *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.*

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 (U/L)	0.16	0.45	0.47	0.59
CV (%)	1.47	1.45	4.90	2.00

ASSAY INTERFERENCE

The common serum interfering substances showed less than 10% interference up to the concentrations summarized below.

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*

DIAZYME LABORATORIES, INC.
12889 Gregg Court, Poway, CA 92064 USA
PO Box 85608, San Diego, CA 92186 USA
Tel: +1-858-455-4768 +1-888-DIAZYME
www.diazyme.com sales@diazyme.com

DIAZYME EUROPE GMBH
Zum Windkanal 21, 01109 Dresden, Germany
Tel: +49-351-886-3300 Fax: +49-351-886-3366
sales@diazyme.de

DIAZYME SHANGHAI CO., LTD.
Room 201,1011 Halei Road, Zhangjiang Hi-tech Park
Shanghai, 201203, People's Republic of China
Tel: +86-21-51320668 Fax: +86-21-51320663
www.lanyuanbio.com service@lanyuanbio.com