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**ADA** 

(Adenosin Deaminase)

( Pulmonary Tuberculosis)
Pleural effusion )

(Tuberculosis

## Use of Adenosin Deaminase in Diagnosis of Tuberculosis

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## **ABSTRACT**

This research deals with the possibility of assaying the activity of adenosin deaminase (ADA) for Tuberculosis diagnosis. Results indicated that its activity increases by Tuberculosis infection though its level in serum is lower than in pleural effusion samples due to infection by pleural effusion Tuberculosis. The high values of ADA activity on pleural effusion infection, makes this a specific test for Tuberculosis infection rather than total protein test and leucocyte differentiation number which are not specific tests for this case.

```
Adenosin Deaminase (ADA)
Adenosin Amino
                                                                             Hydrolase
                                                                       ADA
                            .(1996
                                          )
                                                      ADA
                                                                               (CD<sub>4</sub>) T
Hutton et al., 1981; Farrari et al., 1993; Cortan et al., 1994; )
                                                                   (Michael et al., 1995
       .( Casanova et al., 1992; Cortan et al., 1994; Michael et al., 1995
                                                                                       )
                          1978
                                            Piras
                    Pleural Effusion
                                                     ADA
                                            .(Pirase et al., 1988)
                                                   Meningitis Tuberculosis
                           .( Donald et al., 1986; Segura et al., 1989 1996
                                                                                       )
                                                    .(Segura et al., 1989 1996
                                                                                       )
                                                    .(Sharma and Mohan, 1996) SNCN
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55 ...

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Berger)
                     .(and Mijia, 1978; Pirase et al., 1988; Sharma and Mohan, 1996;
                                                                                    .1
                                   (58)
                                                                               (25)
                                         (12)
                                                                                     .2
                                                                        (100)
                                 (
                                                                    3
                                                                        (1)
                                                                        (60)
                                                                                  (37)
                                         3
                                              (3)
                                                           Marbach's Reagents
                                                                         3
                                                                             (3)
                               (
                                                      )
                                                            (30)
                                                                       (37)
                     (630)
                                                             Spectrophotometer
                       .(
                                                                            )
                                                                                     .3
                                 ) (John et al., 1974)
                                                             (
                                     (1)
                                 3
                                                                                A,B,C
                                   C
                                                   (5)
                                               3
(10)
                                                     (0.5)
                                                                       (25)
(750)
```

3

(1)

Blank

BSA

3 (1) 3 / (1000-0)

.

**Differential WBC Count** 

.4

(15- (3000 g)

10)

(8) (100)

. (Lymphocytes) (Neutrophiles)

(2,1)

ADA

%51.7 (30) (19) ( ) (11) %100

%28.2

David )

ADA (and Frank, 1996; Tax and Veerkamp, 1978

Tax and Veerkamp, 1978;)

(Dons, 1981

%100

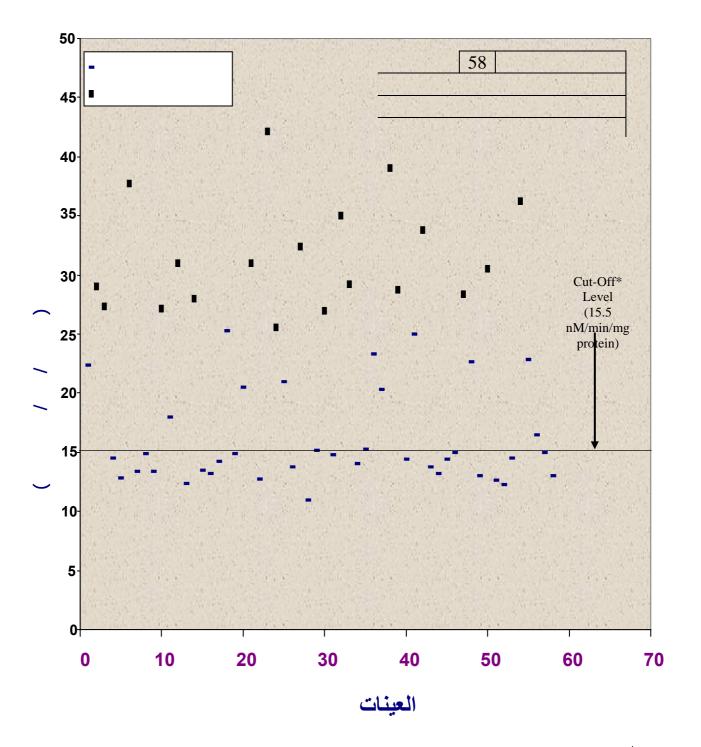
(David and Frank, 1996)

(Michael et al., 1995)

.

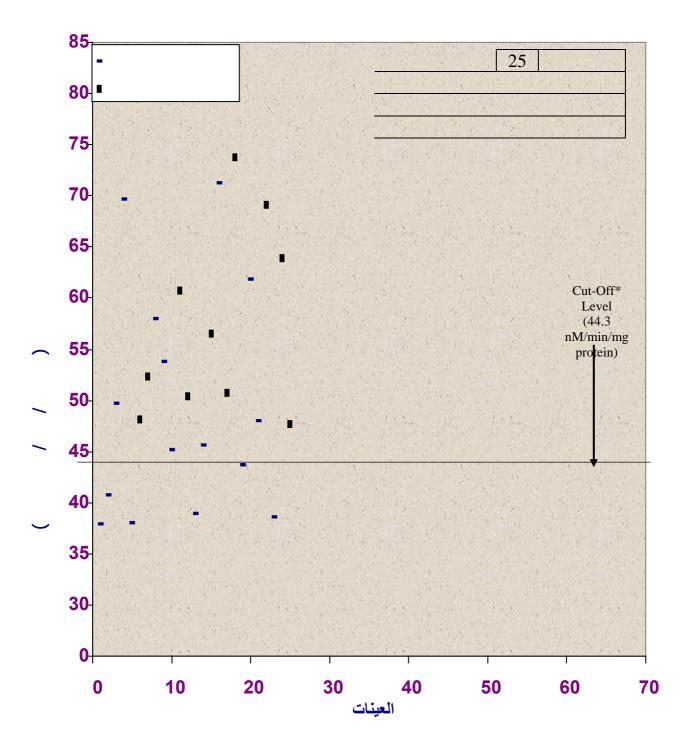
```
1
     )
          (1996
       (1)
    ( P < 0.01 )
                                 (2)
                          (%68)
                                         (17)
                          (%42.8)
                                                              (%100)
                                 (1
                                        )
                                        (Tax and Veerkamp, 1978)
                                        (Pirase et al., 1988)
                          (2)
       .(P<0.05)
                            (1)
                           (
                                              )
```

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:Cut-Off Level \*

. ADA :1



:Cut-Off Level \*

ADA :2

John et al., )

(1974

ADA

:1

ADA

	***	**	*	*	*	
%	%	gm/100 ml	ADA	Z.N.		
4	96	5.7		+	4	1
8	92	5.2		+	7	2
14	86	8.0		+	15	3
20	80	6.5		+	22	4
5	95	4.6		-	3	5
25	75	5.5		-	8	6
60	40	3.1		-	16	7
73	37	4.2		-	20	8
85	15	7.8		-	1	9
65	35	3.8		-	5	10
58	42	6.6		-	19	11
74	26	6.4		-	23	12

.2

.(3 gm/100 ml)

+++

.1996

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