

***Proteus vulgaris* Pv12**

*Proteus vulgaris*

3.33 / Pv12  
 ( 25 - 50 % )  
 109.68 / , 68.4 1.91  
 DEAE-Sepharose  
 20 PEM %60.03 55.3  
 0.15 7.5  
 175.09 /  
 %36.55 90.25  
 , SephacrylS-200Chromatography  
 215000

*Proteus vulgaris* Pv12

pI  
 . 5.3

, *Proteus vulgaris* :

*Proteus*

. (2000 Swierzko)

*Proteus vulgaris*

. (1999 Zunino )

*Proteus vulgaris*

( 1989 Hausinger Mobley)

(E. C. 3.5.1.5 )

Hydrolases

Tanaka )

Substrate

Urea

,(2003

. 2010 / 12 / 27

. 2011 / 3 / 14



DEAE –Sephacryl S-2000 ( Vo ) 200  
 15 × 1.5 7.5  
 0.5- 0  
 (1972)Bernhard Whitaker  
 20 PEM

S-  
 , Pharmacia fine chem. 200  
 PEM 75×2  
 . 7.5 20

Sephacryl S-  
 2000 ( Vo ) 200  
 Bovin Serum albumin, 67000; )  
 Aldolase, 15900; Catalase, 232000; Ferritin ,440000; Thyroglobulin,  
 ( 600000  
 Ve /Vo

**: (pI ) Isoelectric point**  
 ( Isoelectric Focusing)  
 (1971)Wrigley . ( 9.5 -3.5)

, ( %50 -25 )  
 1.74 / 3.33  
 % 68.4 1.91 , /

( 2000 ) Hirayama  
 Mulberry  
 % 68.3 14.7  
 . ( 1 ) % 50-25

**. Proteus vulgaris Pv12**

**. 1**

	(%)	( )	( / )	( / )	( / )	( )	
1	100	542380	1.7	31139.1	5423.8	100	
1.91	68.4	371241	3.33	1238.2	4124.2	90	%50-25) (
63.03	55.36	300313.5	109.68	32.21	3533.1	85	DEAE- Cellulose
90.25	36.55	198240	175.05	25.10	2643.2	75	Sepharose 4-B

**DEAE -Sephacryl**

,( Anion exchange)

%60.03 55.3

/ 109.68

( 1980 Pharmacia )

. ( 1990 Rossomando )

**. Sephacryl S- 200**

175.04

%36.55 90.25

/

(1987 )Todd Hausinger

.(1990 Stellwagen )

Suprose -6

*Klebsiella aerugenosa*

/ 2200

%24.5

1070

:

Lee

215000

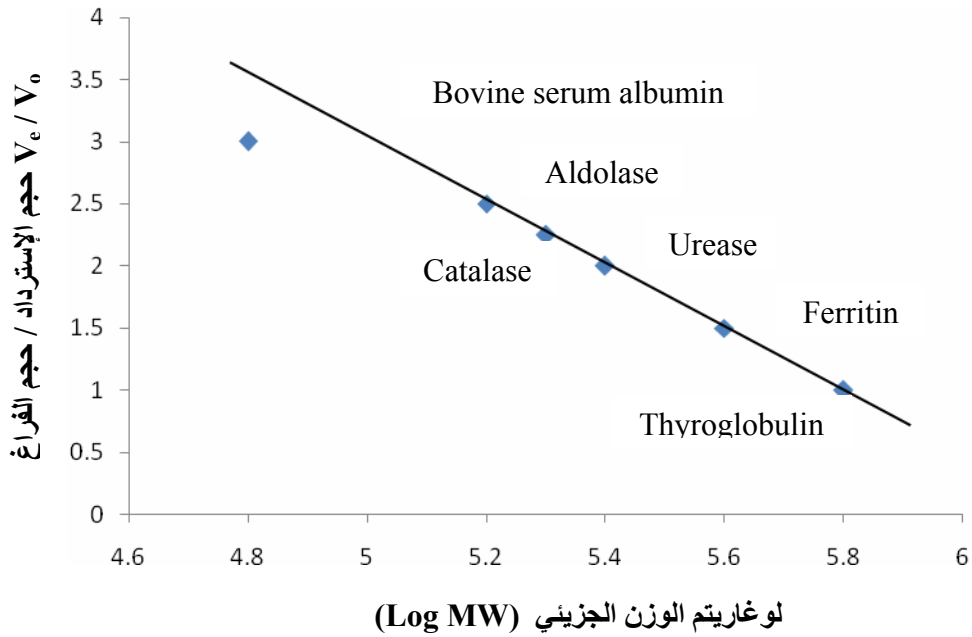
Mobley  
Proteus

224000

(1990)  
*Klebsiella aerugenosa*  
( 1988 )

. ( 1 )

212000 *mirabilis*



Pv12

. 1

*Proteus vulgaris*

. / 30

(75 × 2)

Sephacryl S-200

:

(IEF) Isoelectric Focusing

5.3

, ( pI)

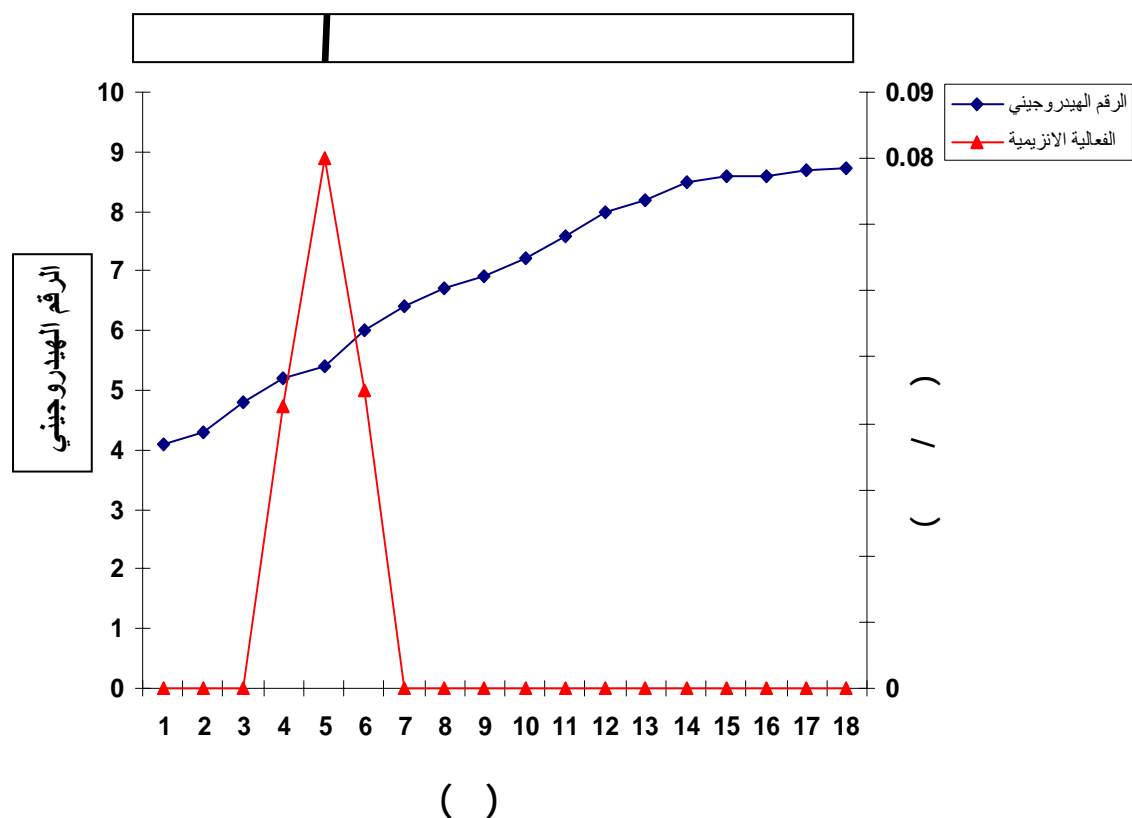
*Proteus vulgaris* Pv12

( 2 )

.( 1971 Wrigley)

5.3

*Proteus vulgaris* Pv12



*Proteus* Urease . 2  
 .(Isoelectric focusing) *vulgaris* Pv12

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## **EXTRACTION AND PURIFICATION OF URASE FROM *Proteus vulgaris* Pv12 ISOLATED FROM CHILDREN INFECTED WITH URINARY TRACT INFECTION IN IRAQ .**

**Hadi R. R. Al-Taai**  
**Biology Dept. / College of Science/ Diyala University**

### **ABSTRACT**

The results of purification of urease was extracted from local isolates *Proteus vulgaris* Pv12 showed the specific activity 33.33 unit / mg protein by ammonium sulfate with ( 25- 50 ) % percentage of saturated , and specific activity 109 . 68 unit / mg protein , purified 60.03 fold and 55.3% of yield by DEAE sepharose , While the results indicated the specific activity 175.09 of unit / mg protein , purified 90.25 fold and 36.55% of yield by sephacyl S-200 chromatographieles . Using buffer (PEM) 20mM With 7.5 pH. Molecular weight of enzyme was about 215000 Dalton determined by gel filtration. The results indicated the isoelectric point of purified urease that extracted from *Proteus vulgaris* Pv12 was 5.3.

**Key words : *Proteus vulgaris* , urease , gel filtration , molecular weight , Isoelectric point**