

1972

Gila

12

100 + 1.5

% 5 -1

. 6 pH - 0.05 -2

. NaCl % 3 + -3

.NaCl % 6 + -4

24

20 / 10000

1 (1970) Mukai Kawai / % 10

10

6.4 0.01

37

35 40 10

. (1951) Lowery :

% 60

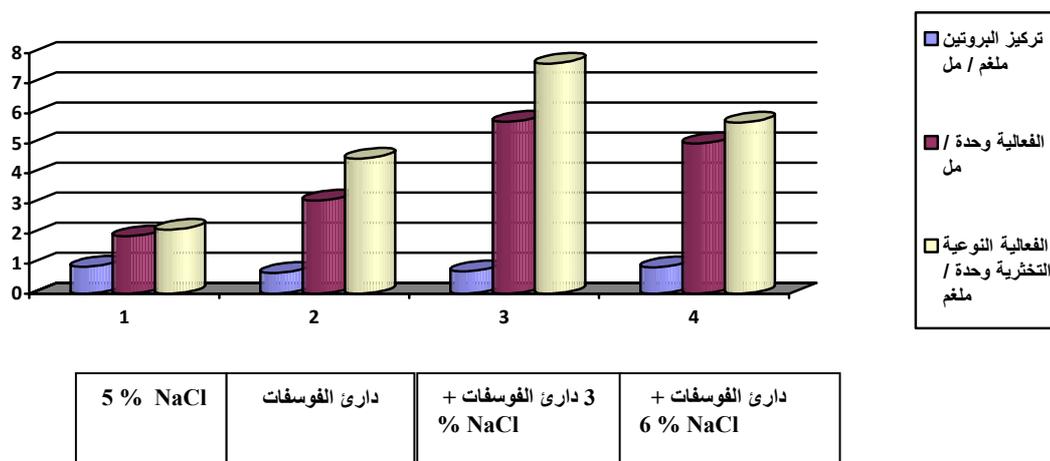
20 / 10000 . 4

6 0.05

3 24

128

	:			-1
. 8 - 4.5	:			-2
. 90-40	:			- 3
	:	100 - 10	CaCl ₂	- 4
	:	10		
	:	Iodo acetic acid , Ethylene diamine tetra acetic acid (EDTA) , β- mercaptoethanol		
37	.			
	.		control	
				1
		NaCl % 3	/ 7.65	/
(5.69)(4.5)(2.12)			.	NaCl %6
2010	Guiama)		.(2010	Guiama
		.(1992)	



5 % NaCl	دارئ الفوسفات	3 دارئ الفوسفات + % NaCl	دارئ الفوسفات + 6 % NaCl
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. 1

Solanun dubium

(2009) Ahmed) 5 pH NaCl %5

Duarte)

(2009) 1 / 9.33 %60 2.73 % 46.2

.1

(%)	()	(/)	(/)	(/)	()	()
100	1	428.4	3.42	1.39	4.76	90
46.2	2.73	197.8	9.33	0.92	8.6	23

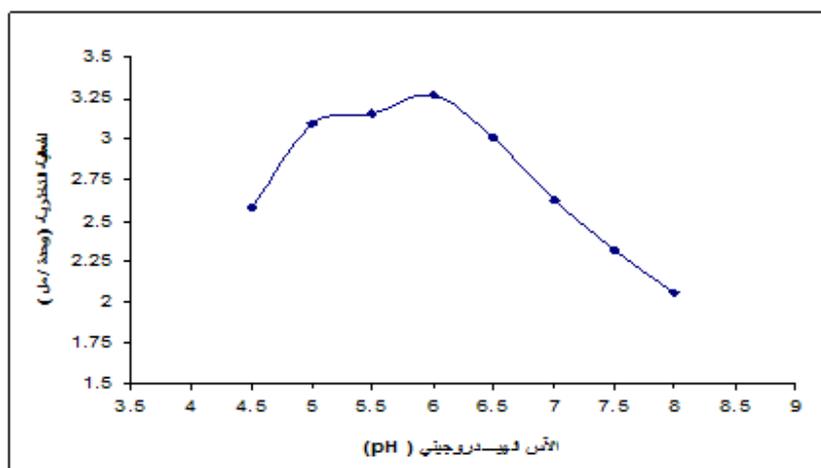
(2009) Duarte

Asakura % 60 40

/ 95.7 oryzasin (1997)
. % 60 % 27.8

2

6 pH 4.5 pH



.2

(2007) Egito *Albizia julibrissin* pH
6)
(1999)
(2006) Senthilkumar *Streblus asper*
. 5.5 pH (6.3 6) pH
(2007 El-Bendary)

. (1989 Sonnet Whitaker) pH Ca^{+2}

/ 282.4

3

75

. (2006 Parkin)

Nouani) 82 80 ()

(1983) Hosono . (2009

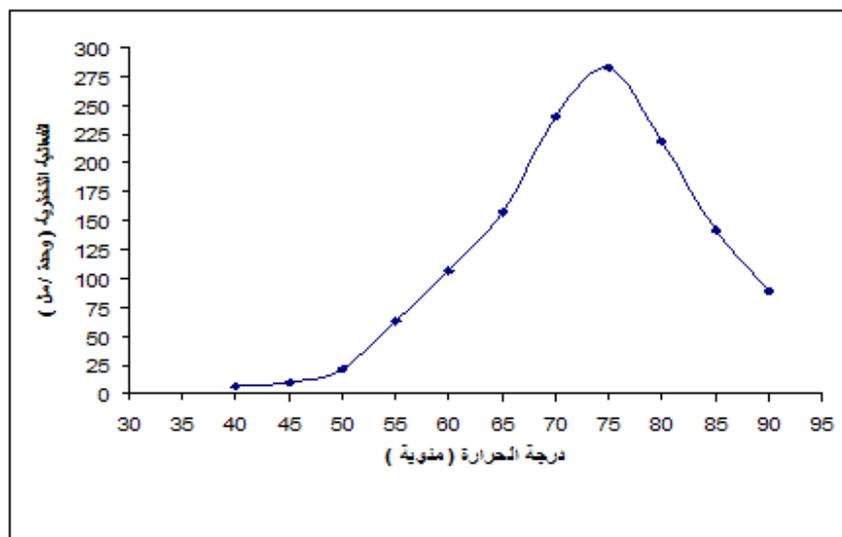
70 *Wrightiana calysina*

. 90

37 Withania

Naz)

. (2009



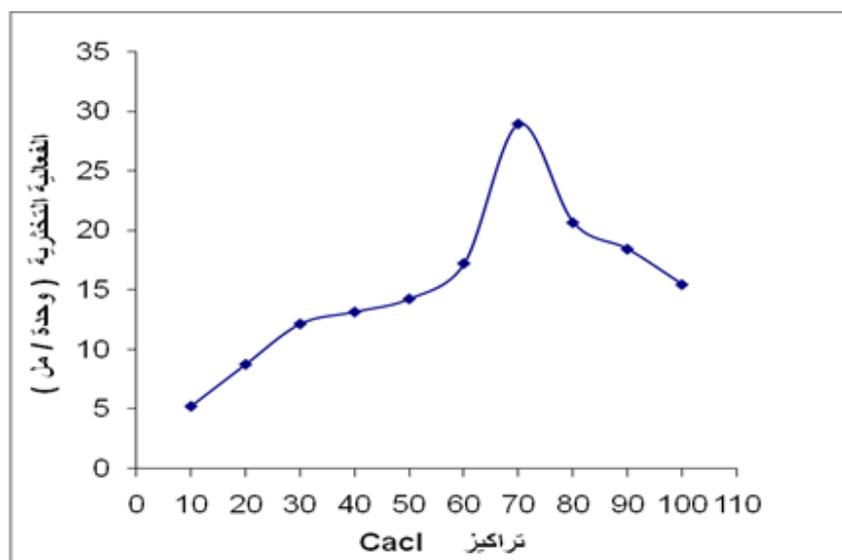
.3

4

0.5 70 10 (2009) Nouani .

CaCl₂

.(2007 Ca⁺² El-Bendary)



.4

2
% 107.04 EDTA

. β- mercaptoethanol Iodo acetic acid (SH)
(Cysteine protease)

. 2

control	%	
100		control
103		Iodo acetic acid
107.04		Ethylenediamine tetra acetic acid
100		β-mercaptoethanol

- Streblus Aspartic proteases
Pepstatin Withania
Senthilkumar 1997 Asakura)
Naz 2006 (2009 Cysteine proteases
(2009 Duarte)
(1989 Whitaker)
. 1992 .
. 118-109 : (24)1:
. *Carica papaya* .1999
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EXTRACTION OF MILK – CLOTTING ENZYME FROM *Cartamus tinctorius* SEEDS AND PARTIAL CHARACTERIZATION

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ABSTRACT

The partial characterization and purification of milk clotting enzyme from defatted meal of safflower seeds was done . The enzyme was extracted using four different types of buffers ,the most efficient extraction solution was found to be 3% NaCl in phosphate buffer . The enzyme was partially purified by precipitation with ammonium sulphate at 60% saturation , giving specific milk clotting of 9.33 unit/mg . The study of some specifics of partially purified enzyme pointed out that the maximum milk clotting activity observed at pH value 6 . At determination the optimum temperature for activity the enzyme from safflower seeds exhibited the maximum coagulation activity at 75 C. Upon examining the effect of the addition of CaCl₂ on coagulation activity at range of 10 – 100 mM ,the enzymatic activity increases as the concentration of CaCl₂ increases ,and the high activity at a salt conc. of 70 mM ,after that the activity decrease . To know the effects of some inhibitors on activity like Iodo acetic acid , EDTA and β-mercaptoethanol ,the enzyme was incubated with these compounds , it was clear that they had no significant inhibitory effect on enzyme coagulation activity .