

Serratia ficaria

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2006/10/3

2006/4/20

ABSTRACT

The study involved isolation and identification of the bacterium *Serratia ficaria* from the soil ,and The effect of incubation period , different carbon and nitrogen sources on ability of the isolate to produce extracellular polysaccharide was investigatal . The highest production of polysaccharide (2.55 g/L) was obtained after (5) days of incubation . Maximum and lowest production of polysaccharide was achieved when glucose and sodium nitrate was (2.57 and 2.91 g/l) , lactose and sodium nitrite (0.72 and 0.93 g/L) as a carbon and nitrogen source respectively .

Serratia ficaria

2.55)

(/ 2.91 2.57) (5) (/
(/ 0.93 0.72)

Fermentars

(intracellular)

.(extracellular)

structural

....

Serratia ficaria

(1)	capsule	
		(2)
	(3) <i>Xanthomonas campestris</i>	Xanthan
Dextran	(4) <i>Sphingomonus paueimobits</i>	Gellan
pullulan	(5) <i>Leuconostoc mesenteroides</i>	
	(6) <i>Aureobasidium pullulans</i>	
	(7)	

(8)

(3)

(9)

Serratia ficaria

:

:

-1

Serratia ficaria

10

1

(⁶-10)

(Nutrient Agar)

24 ° 1 ± 28

(Nutrient Agar)

4-3 ° 1 ± 28

: -2

) (10) Holt

API20E

. (

(API20E System Test)

. (12)

Sedey

(11)

: *Serratia ficaria* -3

24

. ° 4

. ° 1 ± 28

: -4

5

20 :

0.5

0.1

7.0

0.4

(13)

Serratia ficaria

50

250

. 48

(/

150)

° 1 ± 28

250

5

(/

45)

2)

(/

150)

° 1 ± 28

. (14) AL-Somidee

(7 6 5 4 3

:

-5

5

° 60

Pesteurization

....

Serratia ficaria

30 (/ 9000)

24 ° 60

30 10

30 (/ 9000) (15)

24 ° 60

:

: *Serratia ficaria* -1

Mucoid Smooth

1979

.(18 17 16)

. (1)

(API20E System) API20E

. *ficaria* *Serratia*

(1)

-		-	
+		-	
+		+	
-		+	
+		+	
+		-	
-		-	

Positive

(+) Negative

(-)

Serratia ficaria

-2

:

21 20)
 (7 6 5 4 3 2) . (23 22
 (2) .
 5 (/ 2.55)
 (/ 1.35)

(14) AL-Somidee

. *Xanthomonas campestris*

7.0

() (24)AL-Naemi . (23)
 2.21 7.0

Serratia ficaria

(2)

pH	(/)	(/)	()
5.65 (0.03)	1.28 (0.80)	0.60 (0.24)	2
4.21 (0.00)	1.16 (1.00)	1.11 (0.08)	3
4.18 (0.80)	1.10 (0.00)	1.30 (0.07)	4
4.07 (0.24)	0.67 (0.16)	2.55 (0.04)	5
4.04 (0.01)	0.57 (0.08)	1.32 (0.12)	6
4.03 (1.12)	1.35 (0.01)	0.71 (0.05)	7

(S.D)

:

S. ficaria

) (/) % 2

.(

(3)

(/ 0.72) (/ 2.57)

(7)

. *campestris*

.(25)

(/ 2.64)

(7.0)

(30 29 28 27 26 24)

(3)

pH	(/)	(/)	(%2)
4.04 (0.02)	0.69 (0.16)	2.57 (0.01)	
6.29 (0.79)	0.98 (0.04)	2.48 (0.91)	
6.73 (0.43)	2.64 (0.17)	1.20 (0.15)	
5.11 (0.05)	1.65 (1.81)	0.85 (0.04)	
6.91 (0.72)	0.70 (0.09)	0.72 (0.09)	

(S.D)

-4

:

) *S. ficaria*

(

(% 0.018)

(4)

(/ 2.91)

(/ 0.93)

(Sodium nitrite)

. (20) Demain Souw

X. campestris NRRLB-143

()

(31)

(/ 0.78)

Serratia ficaria

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Serratia ficaria

(/ 0.49)

.(4.33)

(7.0)

Serratia

(4)

ficaria

pH	(/)	(/)	(% 0.018)
4.78 (0.07)	0.66 (0.20)	2.51 (0.01)	
4.33 (0.01)	0.67 (0.01)	2.91 (0.04)	
5.99 (0.20)	0.49 (0.04)	0.93 (0.00)	
6.19 (0.04)	0.78 (0.01)	1.42 (0.42)	
5.53 (0.01)	0.71 (0.00)	1.98 (0.01)	

(S.D)

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