



Research Article

Antiviral Activity of Selected *Bacillus* Isolates against Tobacco Mosaic Virus and Their Molecular Identification Using 16S rRNA Sequencing and Start Codon Targeted Markers

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Keywords | SCoT markers, *Bacillus* isolates, Genetic diversity, 16S rRNA gene sequencing, Tobacco mosaic virus, Antiviral activity, Biological control, Phylogenetic analysis



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Supplementary Table S1: SCoT polymorphism profiles and band frequency generated among the different *Bacillus* isolates using SCoT primers.

MW	Bacillus isolates					Fre- quency
	B-01	B-02	B-03	B-04	B-05	
SCoT-03						
1150	0	0	0	1	0	0.2
1000	0	0	1	0	0	0.2
810	1	0	1	0	0	0.4
760	1	1	0	1	0	0.6
680	1	0	0	0	0	0.2
610	0	1	0	1	0	0.4
530	0	0	1	1	0	0.4
470	1	0	1	0	0	0.4
440	1	1	1	1	1	1.0
Table continues on next column.....						

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MW	<i>Bacillus</i> isolates					Fre- quency
	B-01	B-02	B-03	B-04	B-05	
390	1	1	0	1	0	0.6
340	0	0	1	0	1	0.4
310	0	0	1	1	1	0.6
270	1	0	1	0	1	0.6
260	0	1	1	0	0	0.4
230	0	1	0	1	1	0.6
SCoT-04						
1400	1	0	0	0	0	0.2
1150	0	0	1	0	0	0.2
1100	0	0	0	1	0	0.2
1050	0	0	1	0	0	0.2
930	1	0	0	0	1	0.4
770	0	0	0	0	1	0.2

Table continues on next page.....

MW	<i>Bacillus isolates</i>					Fre- quency
	B-01	B-02	B-03	B-04	B-05	
700	1	1	1	1	1	1.0
680	1	1	1	1	1	1.0
670	1	1	1	1	1	1.0
610	1	0	0	1	0	0.4
520	0	1	1	1	0	0.6
470	0	0	1	0	1	0.4
450	1	1	0	0	0	0.4
390	0	1	0	0	1	0.4
370	1	0	0	0	0	0.2
340	1	0	0	0	1	0.4
320	0	1	0	1	0	0.4
300	0	0	1	0	1	0.4
280	0	0	0	1	1	0.4
250	1	1	0	1	1	0.8
210	1	1	1	1	1	1.0
200	0	1	0	1	1	0.6
180	1	0	0	0	0	0.2
SCoT-05						
1250	0	1	0	0	0	0.2
1200	0	0	1	0	0	0.2
790	1	0	1	0	0	0.4
680	0	1	0	0	0	0.2
600	0	1	0	0	0	0.2
510	1	0	0	1	0	0.4
470	0	0	0	1	0	0.2
410	1	0	0	0	0	0.2
390	1	1	1	1	1	1.0
360	1	1	1	1	1	1.0
340	0	0	1	0	0	0.2
310	1	1	0	0	1	0.6
300	0	1	0	0	0	0.2
270	1	0	1	0	1	0.6
250	0	0	0	1	0	0.2
240	1	0	1	0	1	0.6
200	0	1	0	1	0	0.4
SCoT-06						
1000	1	0	1	0	0	0.4
820	0	0	0	0	1	0.2
710	1	0	0	0	0	0.2
650	0	1	1	1	1	0.8
570	1	0	0	0	0	0.2
530	1	1	1	1	1	1.0
520	1	0	0	0	0	0.2
490	1	0	0	0	0	0.2
460	0	1	1	0	0	0.4
<i>Table continues on next column.....</i>						

MW	<i>Bacillus isolates</i>					Fre- quency
	B-01	B-02	B-03	B-04	B-05	
450	1	1	1	1	1	1.0
400	0	1	1	1	0	0.6
350	1	0	1	0	1	0.6
270	1	0	1	0	1	0.6
250	1	0	0	0	0	0.2
SCoT-09						
1250	0	0	1	0	1	0.4
940	0	1	1	1	0	0.6
840	0	1	0	0	0	0.2
720	0	1	0	0	0	0.2
600	0	1	1	1	0	0.6
510	0	0	0	0	1	0.2
460	1	0	0	0	0	0.2
420	0	0	1	1	0	0.4
360	0	0	1	0	0	0.2
330	1	0	0	0	0	0.2
320	1	0	0	1	1	0.6
270	1	0	0	1	0	0.4
230	0	0	0	1	0	0.2
170	1	0	0	0	0	0.2
SCoT-10						
1050	1	0	1	0	0	0.4
920	1	1	1	1	1	1.0
880	1	1	1	1	1	1.0
820	0	1	1	1	0	0.6
750	0	0	1	0	0	0.2
650	0	0	1	0	0	0.2
330	0	0	1	0	0	0.2
280	0	1	1	1	0	0.6
250	0	0	0	1	0	0.2
SCoT-12						
1350	1	0	1	0	1	0.6
1100	1	0	0	0	1	0.4
1050	1	1	1	1	1	1.0
930	1	0	0	0	1	0.4
820	0	0	1	0	1	0.4
750	1	0	0	0	1	0.4
650	1	1	1	1	1	1.0
600	1	1	1	1	1	1.0
560	1	1	1	1	1	1.0
530	1	1	1	1	1	1.0
450	1	0	1	0	1	0.6
360	1	1	1	1	1	1.0
350	1	1	1	1	1	1.0
210	0	1	1	1	0	0.6
<i>Table continues on next page.....</i>						

MW	Bacillus isolates					Fre- quency
	B-01	B-02	B-03	B-04	B-05	
SCoT-13						
1600	1	1	1	1	1	1.0
1500	1	1	1	1	1	1.0
530	1	1	1	1	1	1.0
510	1	1	1	1	1	1.0
460	1	0	0	0	0	0.2
420	1	0	1	1	1	0.8
370	1	0	0	1	0	0.4
340	1	1	1	1	1	1.0
250	1	1	1	1	1	1.0
230	1	1	1	1	1	1.0
200	1	0	0	1	0	0.4
SCoT-14						
560	1	1	1	1	1	1.0
550	1	1	1	1	1	1.0
510	1	1	1	1	1	1.0
460	1	0	1	0	0	0.4
240	1	1	1	1	1	1.0
210	1	1	1	1	1	1.0
180	1	1	1	1	1	1.0
170	1	1	1	1	1	1.0
160	1	1	1	1	1	1.0
150	1	1	1	1	1	1.0