

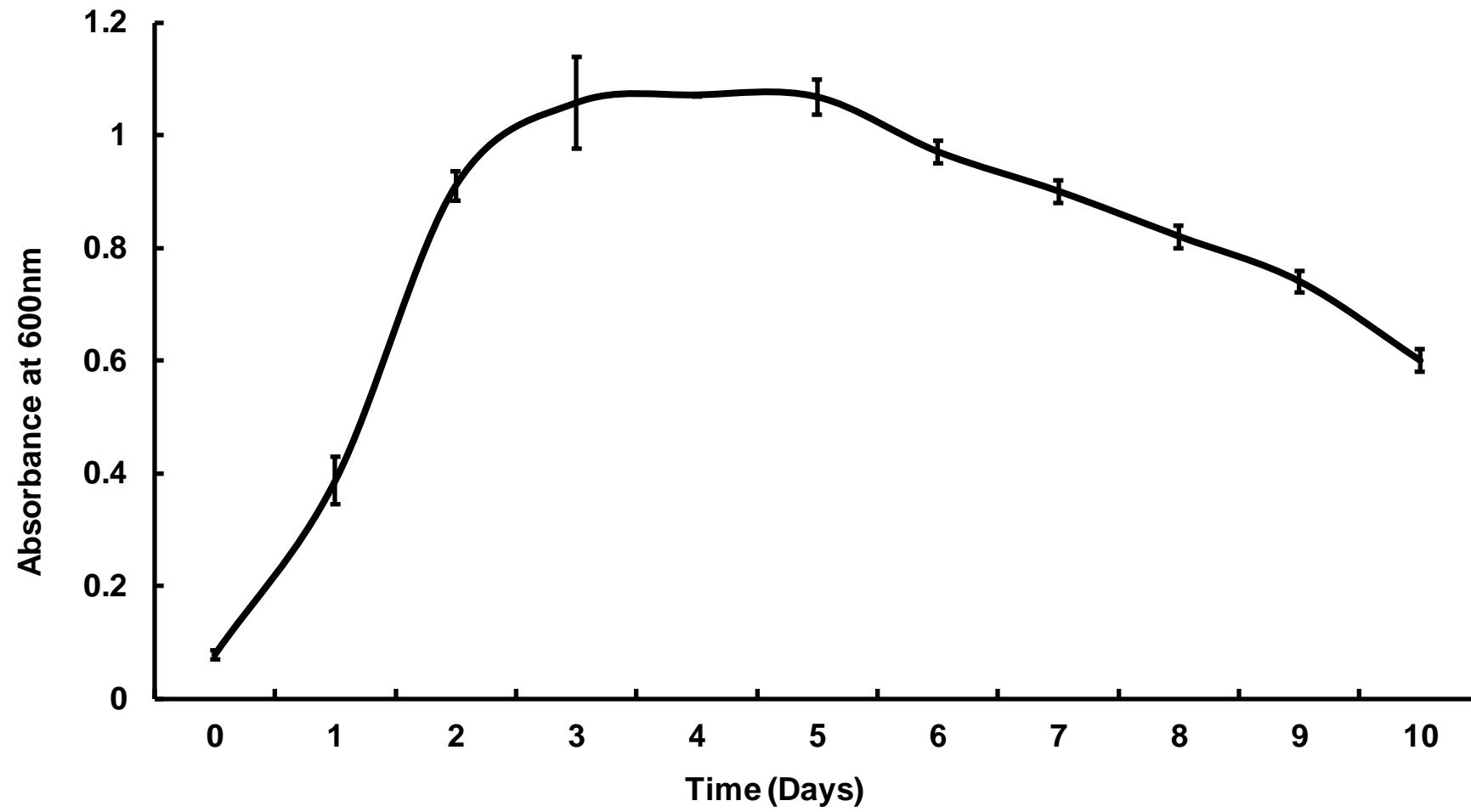
### Supplementary Information

**Table S1: Biochemical characterization of *Bacillus licheniformis* RG1002.** (++) indicates the results were highly positive, (--) indicates highly negative and (-) indicates negative as compared to control samples.

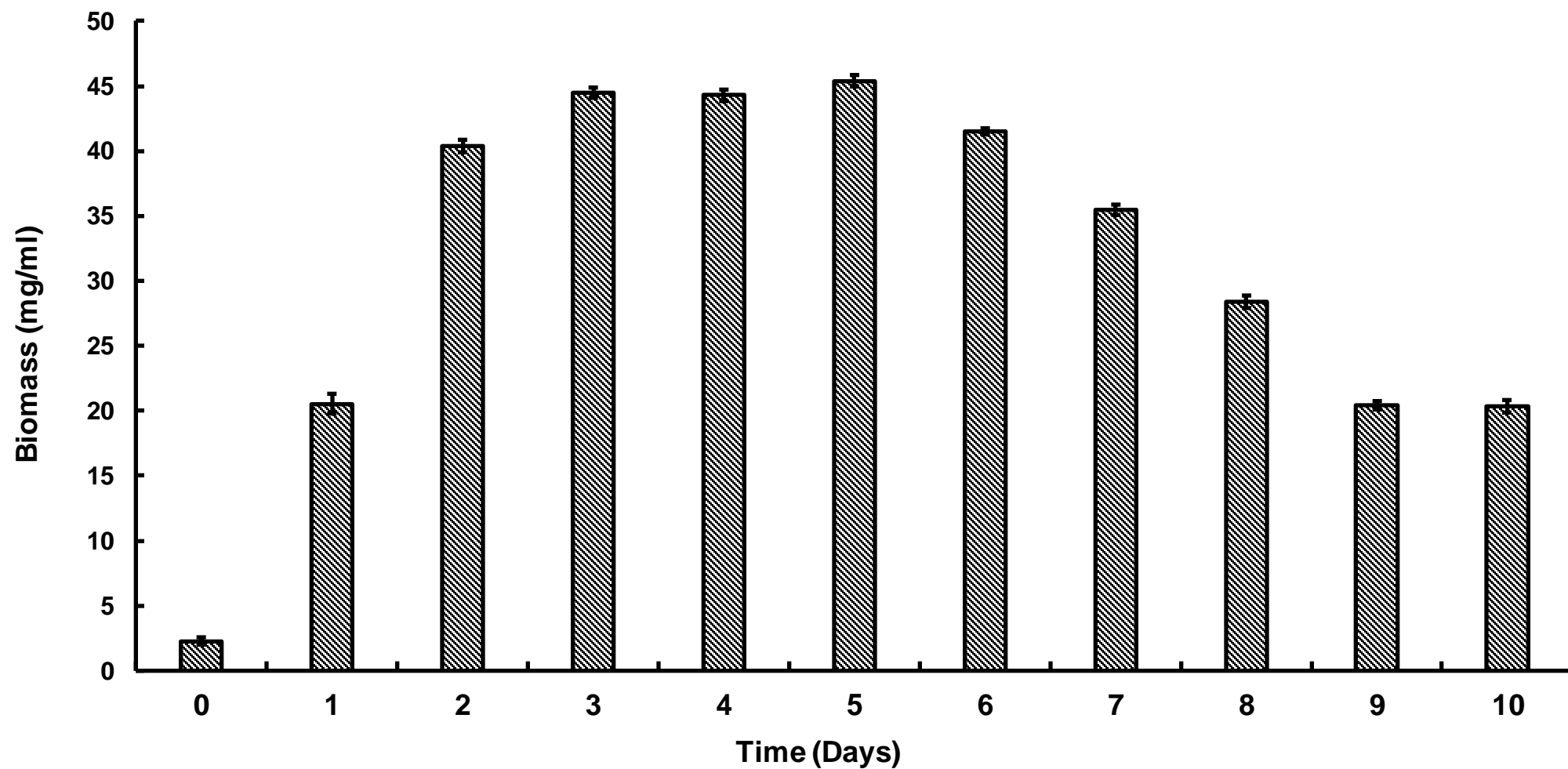
Test	Reaction
Catalase	++
Urease	- -
Citrate	++
Methyl red	-
Voges Proskauer	++
Indol test	- -

**Table S2: Minimum inhibitory concentration of purified Lichenysin against tested pathogens by microtiter plate assay.**

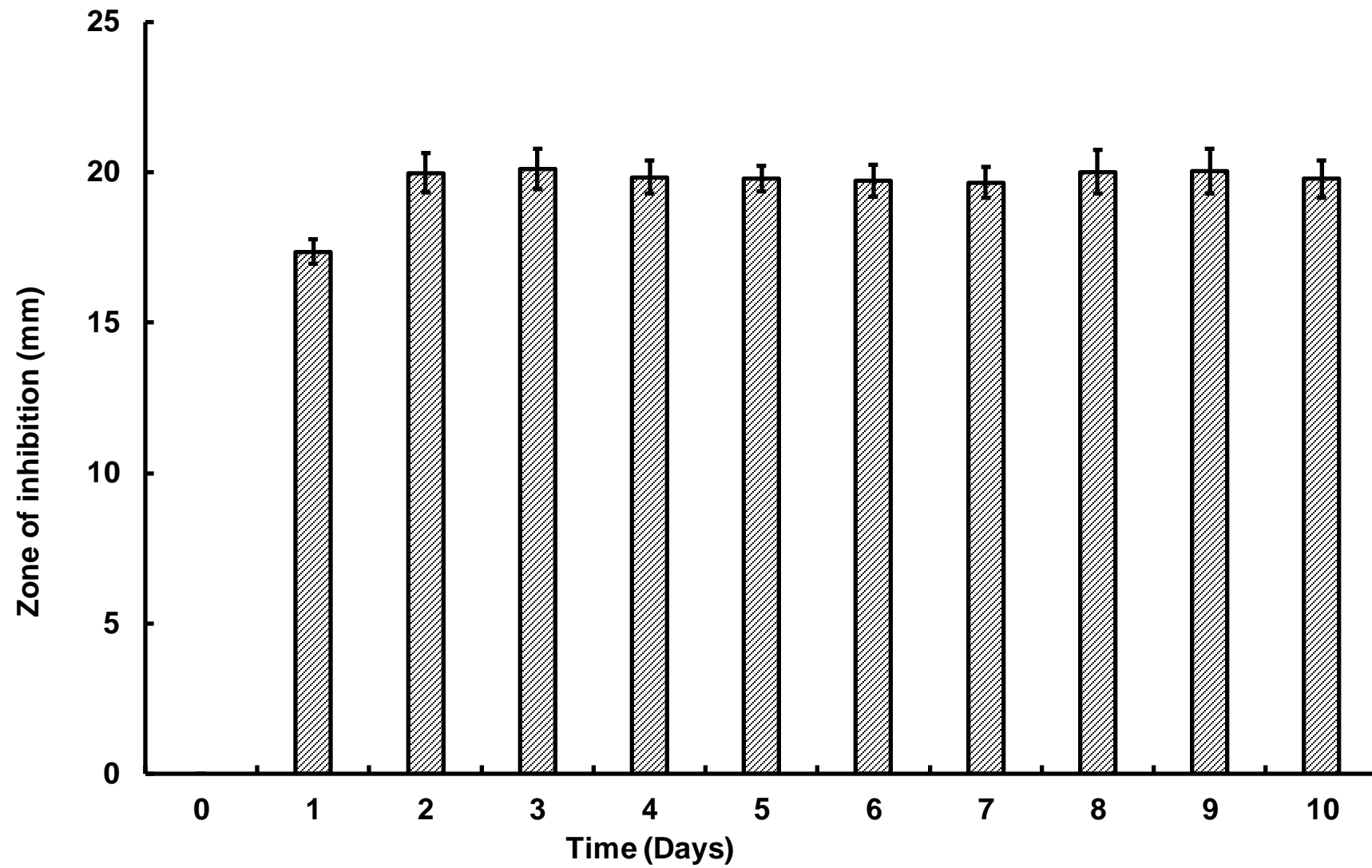
Test organism	MIC (µg/ml)
<i>Shigella flexneri</i> MTCC 9543	25 (µg/ml)
<i>Staphylococcus aureus</i> ATCC 25923	12.5 (µg/ml)
<i>Bacillus subtilis</i> ATCC 6633	25 (µg/ml)
<i>Salmonella typhi</i> MTCC 581	50 (µg/ml)
<i>Pseudomonas aeruginosa</i> ATCC 27853	25 (µg/ml)
<i>Escherichia coli</i> MTCC 1304	12.5 (µg/ml)



**Fig. S1:** Growth curve of strain *Bacillus licheniformis* RG1002.



**Fig. S2:** Biomass production of strain *Bacillus licheniformis* RG1002.



**Fig. S3:** Antimicrobial activity of strain *Bacillus licheniformis* RG1002 measured by agar well diffusion assay for 10 days.



**Lichenysin**

**Control**

**Fig. S4:** Oil displacement test to confirm the surface tension reducing property of purified lichenysin.