Supplemental material

Supplemental Figure S1 to S6, Table S1 and S2

Molecule Targeting Glucosyltransferase Inhibits *Streptococcus mutans* Biofilm Formation and Virulence

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Running Head: Molecule Targeting GTF Inhibits *S. mutans* Biofilm.

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Z.R. and T.C. contributed equally to this work.

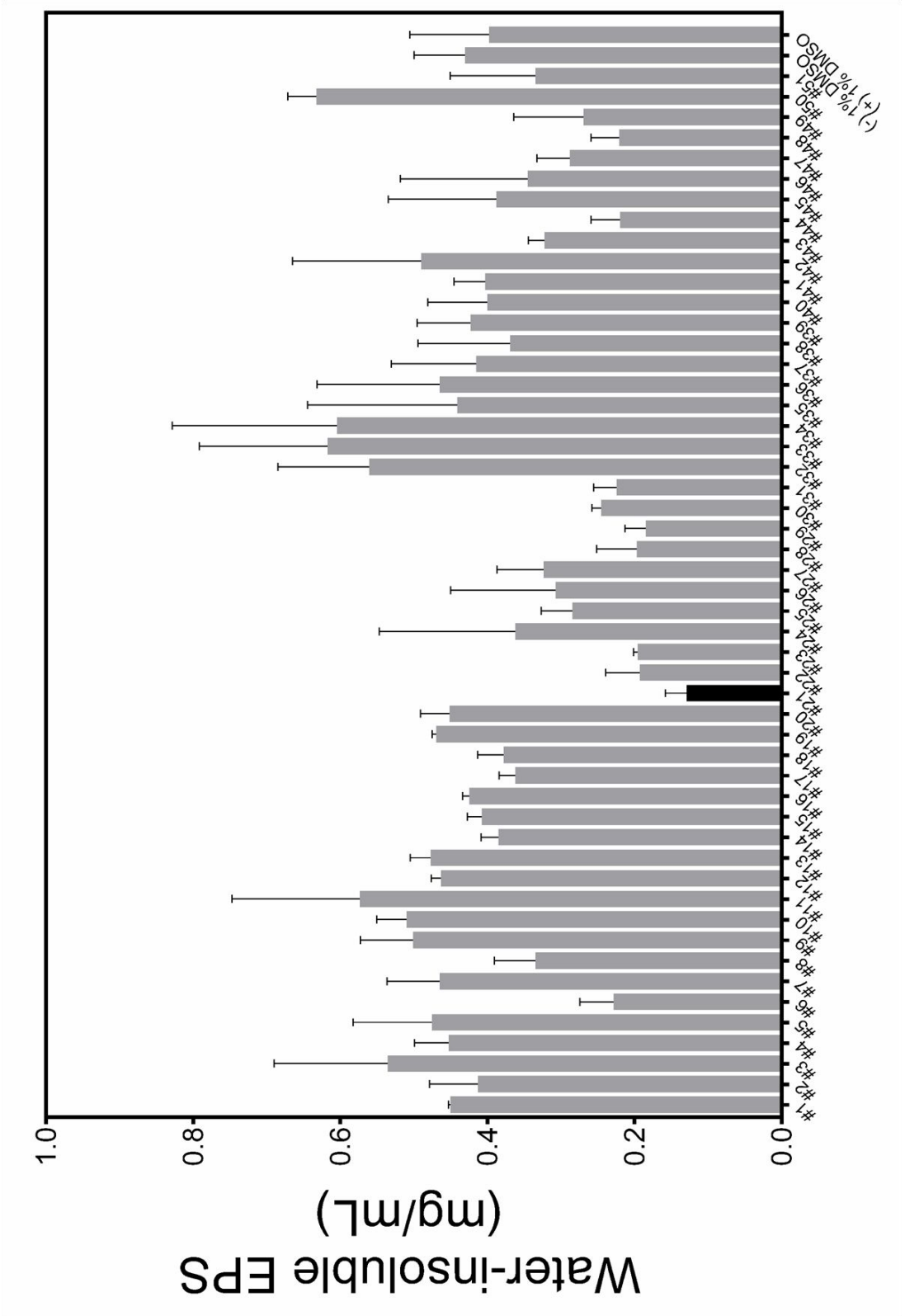

Figure S1. Effect of the 51 lead compounds on the synthesis of water-insoluble polysaccharide in *S. mutans* biofilms determined by anthrone-sulfuric method.

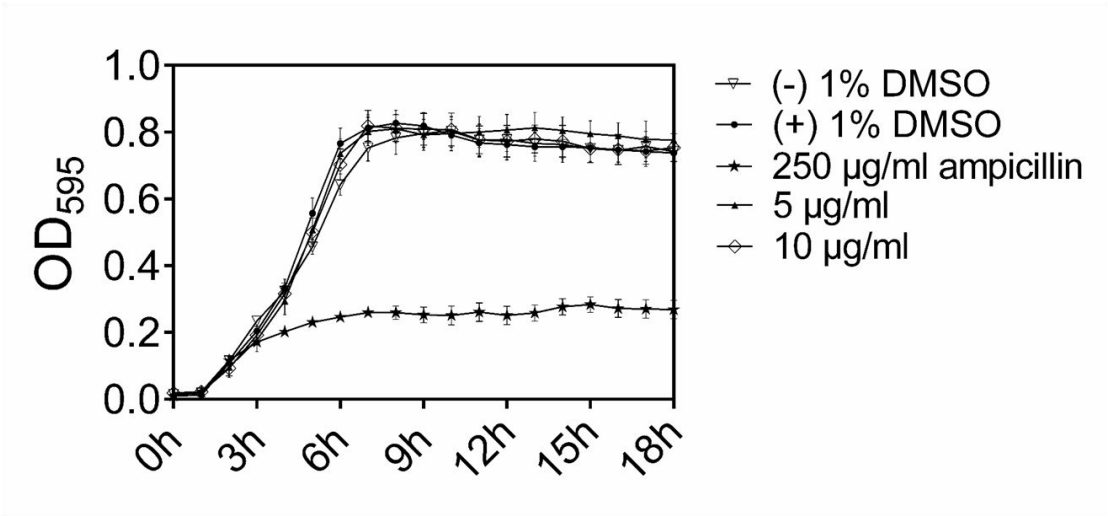

Figure S2. Effect of treatments on growth kinetics of planktonic *S. mutans* UA159.

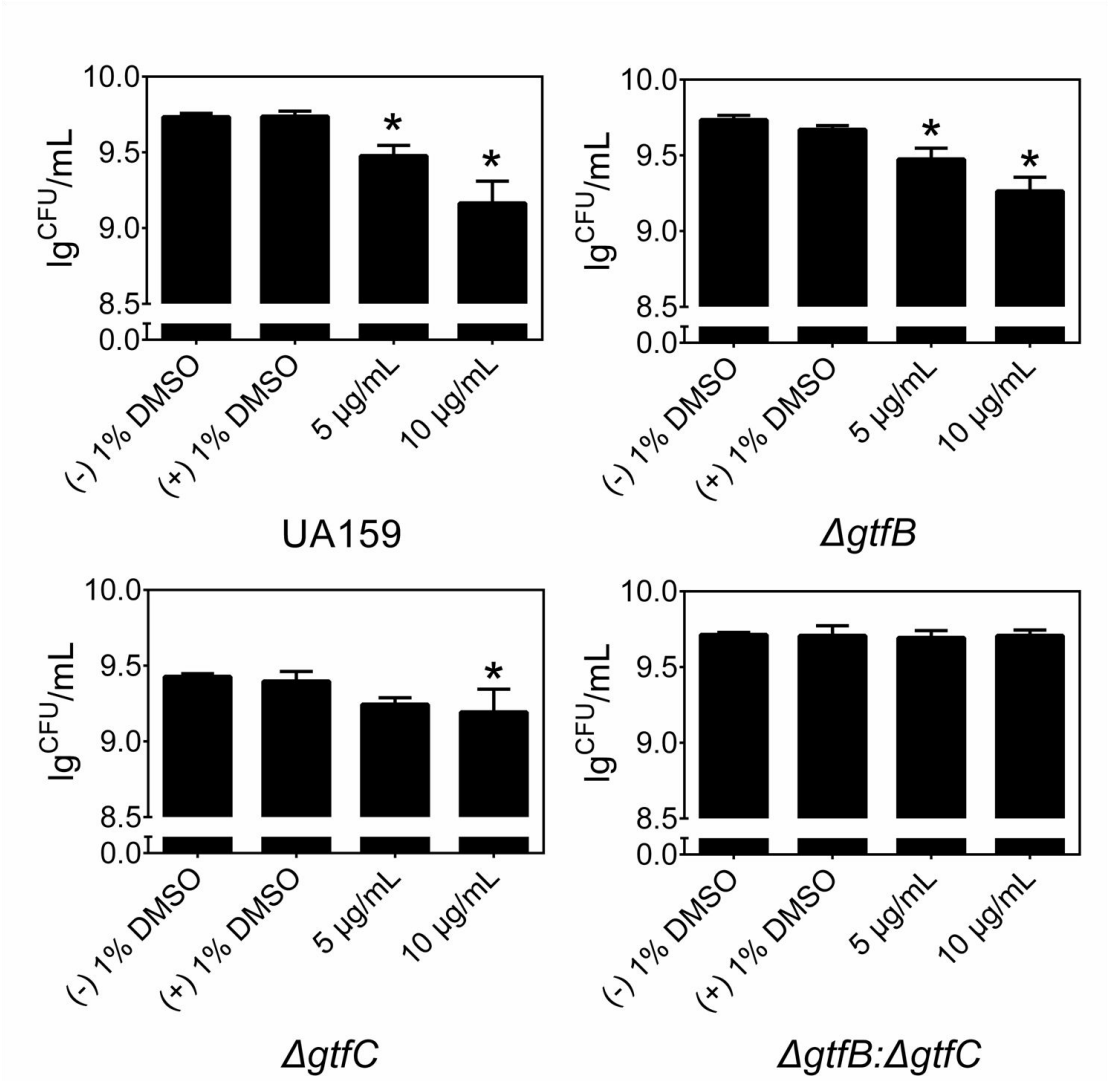

Figure S3. Effect of the compound on biofilms of *S. mutans* UA159 and the *gtf* mutants by determination of average number of CFU recovered per biofilm.

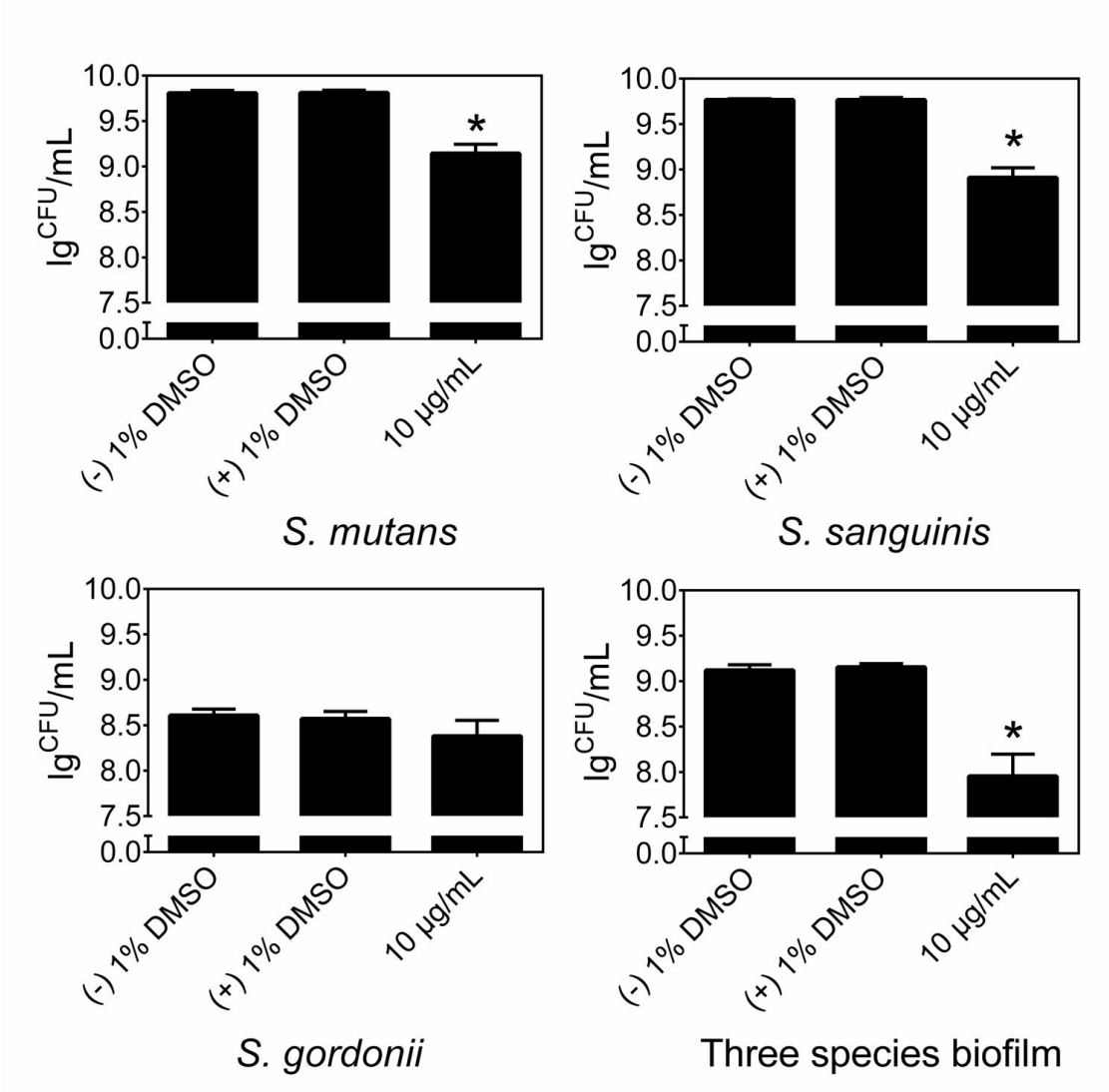

Figure S4. Effect of the compound on biofilm formation by *S. mutans, S. sanguinis*, *S. gordonii* or on multispecies biofilms.

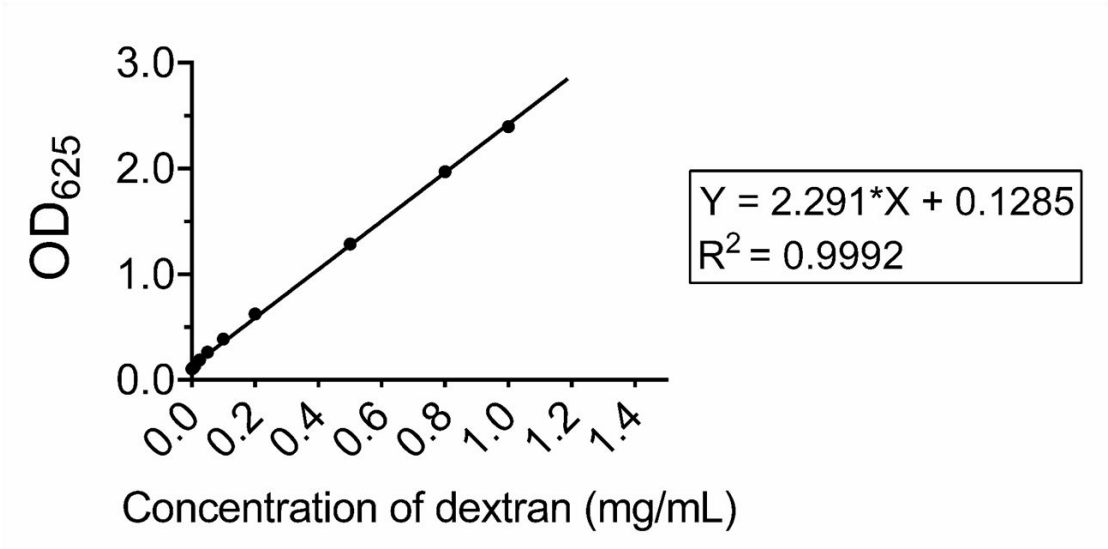

Figure S5. Standard curve for quantitative determination of water-insoluble extracellular polysaccharides by anthrone-sulfuric method.

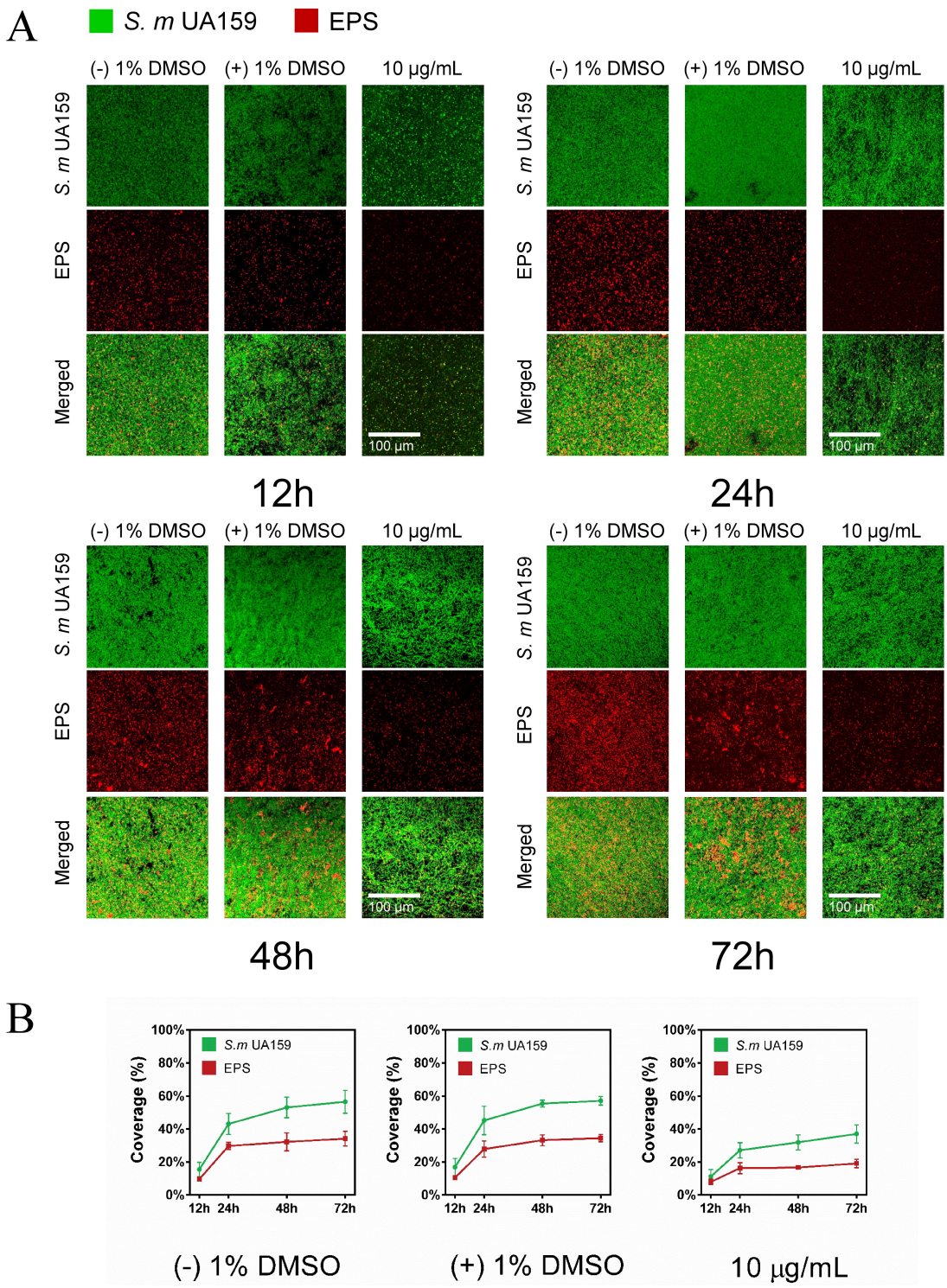

Figure S6. Effect of the compound on the *S. mutans* biofilms at different time points after treatments.

(A) Fluorescence images of bacteria (green) and EPS (red) of *S. mutans* biofilms formed on the surface of glass coverslip taken at ×60 magnification.

(B) Quantitative analysis of the distribution of bacteria and EPS at different points of time.

Values represent the means ± standard deviations from three independent experiments.

*, Significant difference compared with the untreated control ($P < 0.05$).

Table S1. Primers used for quantitative RT-PCR assays in this study.

Primers	Nucelotide Sequence (5′-3′)	Reference
***S. mutans* 16S rRNA- f**	AGCGTTGTCCGGATTTATTG	(11)
***S. mutans* 16S rRNA-r**	CTACGCATTTCACCGCTACA	
gtfB-f	CACTATCGGCGGTTACGAAT	
***gtfB*-r**	CAATTTGGAGCAAGTCAGCA	
***gtfC*-f**	GATGCTGCAAACTTCGAACA	
***gtfC*-r**	TATTGACGCTGCGTTTCTTG	
***gtfD*-f**	TTGACGGTGTTCGTGTTGAT	
***gtfD*-r**	AAAGCGATAGGCGCAGTTTA	

Table S2. Bacterial strains used in this study.

Strains		Description	Source or reference
	S. mutans UA159	Genomic type strain	ATCC
	S. mutans Δ*gtfB*	*gtfB* mutant strain	kindly provided by Robert A. Burne (Department of Oral Biology, University of Florida, Gainesville, FL)
	S. mutans Δ*gtfC*	*gtfC* mutant strain	
	S. mutans Δ*gtfB*:*ΔgtfC*	*gtfB gtfC* double-mutant strain	