Supplementary Material

Strains

Biofilm Formation and Bacterial Aggregation Response of *Planomicrobium chinense* and *Alkaligenes faecalis* Associated with *Periplaneta americana* Found in Household Sewerage





Staining results

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Culture characteristics

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Supplementary Table I. Morphological and cultural characterization of isolates.

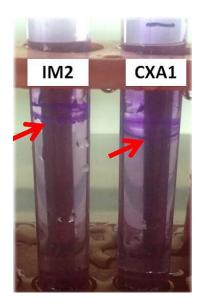
| | Appearance | Form | Pigmentation | Margin | Elevation | Simple Staining | Gram staining | Spore staining | Capsule staining | | |
|---|------------|----------|--------------|-----------|-----------|--------------------|------------------|----------------|------------------|--|--|
| IM2 (Alkaligenes faecalis) | Mucoidy | Circular | Off White | Entire | Flat | Coccus | Gram Positive | Negative | Negative | | |
| CXA1 (Planomicrobium chinense) | Mucoidy | Circular | Orange | Pin point | Flat | Rods | Gram Positive | Negative | Negative | | |
| - KY616623.1 IM2 Alcaligenes faecalis HQ270548.1 Alcaligenes faecalis strain GPSD-20 16S ribosomal RNA gene partial sequence JN792202.1 Bacterium KKCSSM 16S ribosomal RNA gene partial sequence KX185712.1 Alcaligenes faecalis strain CGMCC 12100 16S ribosomal RNA gene partial sequence KX953294.1 Alcaligenes sp. strain BAB-6017 16S ribosomal RNA gene partial sequence KT355726.1 Alcaligenes sp. BAB-5500 16S ribosomal RNA gene partial sequence JX164051.1 Planomicrobium sp. BA-8K 16S ribosomal RNA gene partial sequence JX164063.1 Planomic DQ108395.1 Planococcus sp. Tibet-IIVa1 16S ribosomal RNA gene partial sequence GQ152129.1 Planomicrobium koreense strain WT024 16S ribosomal RNA gene partial sequence KY435701.1 Planomicrobium chinense strain CXA1 16S ribosomal RNA gene partial sequence NR_042259.1 Planomicrobium chinense strain DX3-12 16S ribosomal RNA gene partial sequence AJ68 KF273924.1 Planomicrobium chinense strain KMM 6767 16S ribosomal RNA gene partial sequence | | | | | | | | | | | |

Supplementary Fig. 1. Phylogenetic analysis based on 16 S rRNA showing homology to other reference nucleotide sequences was derived using MEGA6 software. The analysis is based on neighbor join method involving 12 nucleotide sequences. For each of the strains Gene Bank accession numbers are provided.

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Supplementary Table II. Biochemical characterization of isolates.

| Strains | Biofilm ring assay | Starch Hydrolysis | Citrate utilization test | Litmus milk reaction | Methyl red test | Voges-Proskauer test | Catalase test |
|--------------------------------|-----------------------|----------------------|--------------------------|----------------------|--------------------|-------------------------|------------------|
| IM2 (Alkaligenes faecalis) | Positive | Positive | Positive | Acid with Reduction | Positive | Negative | Positive |
| CXA1 (Planomicrobium chinense) | Positive | Negative | Positive | Acid with Reduction | Negative | Negative | Positive |



Supplementary Fig. 2. Biofilm Ring Assay: Crystal violet ring was formed after 144 h of culture incubation.