Supplemental Material

Characteristics of Carbapenemase-Producing *Enterobacteriaceae* in Wastewater Revealed by Genomic Analysis

Ryota Gomi[a,*], Tomonari Matsuda[b], Masaki Yamamoto[c], Pei-Hsin Chou[d], Michio Tanaka[c], Satoshi Ichiyama[c], Minoru Yoneda[a], and Yasufumi Matsumura[c]

[a]Department of Environmental Engineering, Graduate School of Engineering, Kyoto University, Katsura, Nishikyo-ku, 615-8540, Kyoto, Japan

[b]Research Center for Environmental Quality Management, Kyoto University, 1-2 Yumihama, Otsu, 520-0811, Shiga, Japan

[c]Department of Clinical Laboratory Medicine, Kyoto University Graduate School of Medicine, 54 Shogoin-kawahara-cho, Sakyo-ku, 606-8507, Kyoto, Japan

[d]Department of Environmental Engineering, National Cheng Kung University, No. 1, University Road, Tainan, 70101, Taiwan

*Corresponding author

E-mail address: gomi.ryota.34v@kyoto-u.jp (R. Gomi)

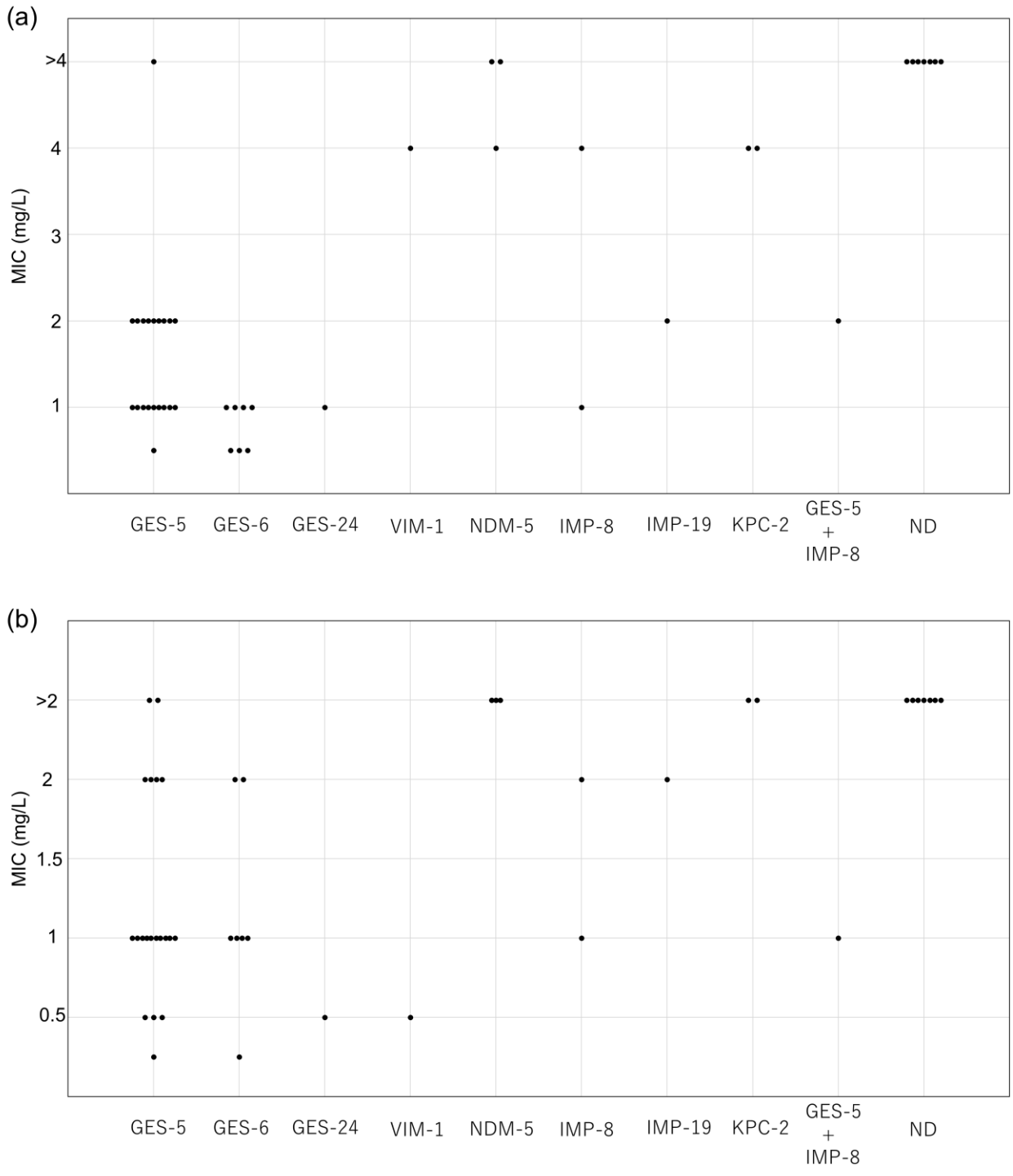

FIG S1 MICs of (a) imipenem and (b) meropenem for 45 isolates. Types of carbapenemases are shown on the x-axis. CLSI MIC interpretive criteria for imipenem and meropenem are as

follows: susceptible, ≤1 mg/L; intermediate, 2 mg/L; resistant, ≥4 mg/L. ND = no carbapenemase-encoding genes were detected for these isolates.

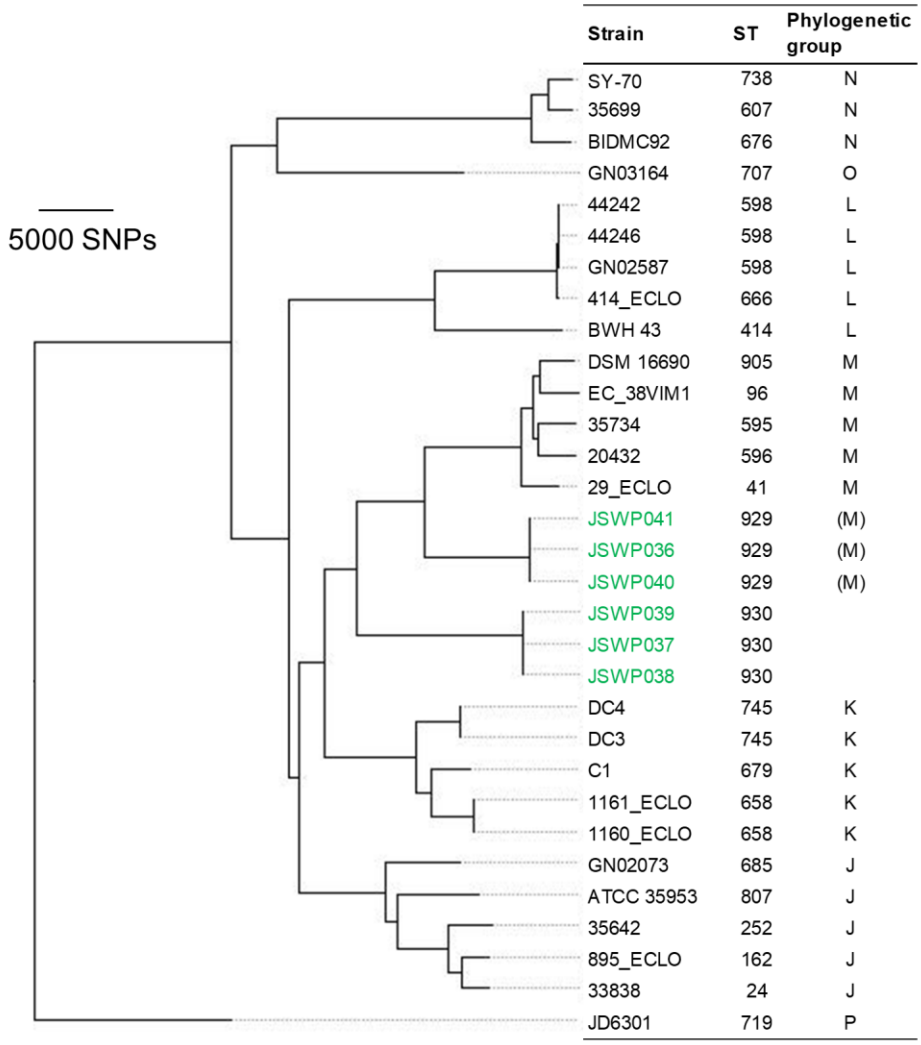

FIG S2 Phylogenetic tree of strains JSWP036-JSWP041 and reference strains belonging to closely related phylogenetic groups (J, K, L, M, N, O, and P). Strain JD6301 (phylogenetic group P) was used as an outgroup.