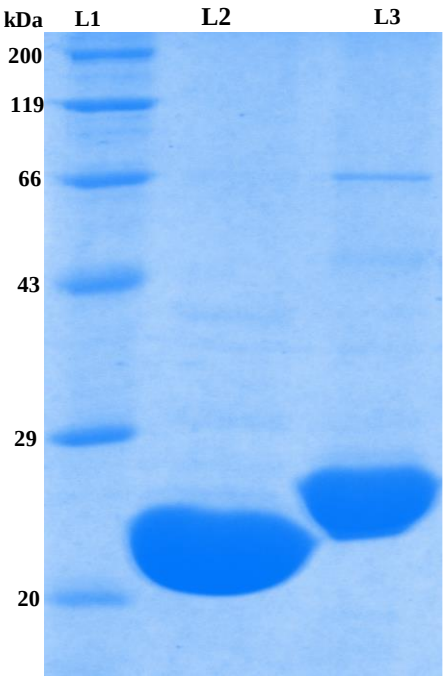

Figure S1: SDS-PAGE analysis of purified fractions of overexpressed LysMK34 (L2) and eLysMK34 (L3). Roti®-Mark standard (Carl-Roth, Belgium) was used as a ladder (L1).

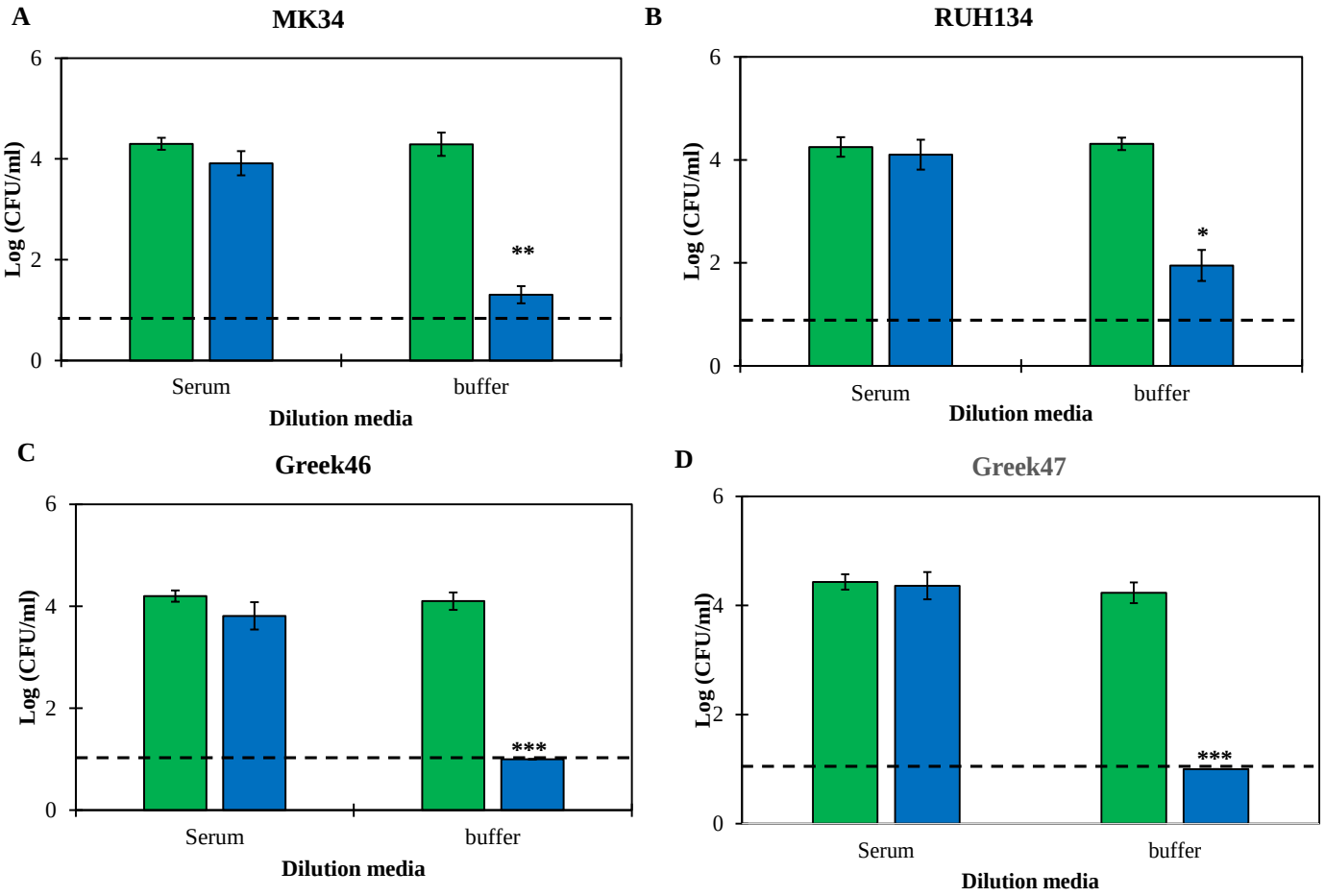

Figure S2: Time-kill assay of different *A. baumannii* strains (MK34 (A), RUH134 (B), Greek46 (C) and Greek47 (D) resuspended 100 % human serum. The suspended cells then treated with equal-volume of eLysMK34 to obtain a final concentration of 20 × MIC (15 – 24 µM; blue bar) or plain dialysis buffer (green bar) for 2 h at 35 ºC. Then, the treated cells washed twice and resuspended in 100 % human serum. Prior to plating, the treated cells either diluted in 100 % human serum (left) or 20 mM HEPES-NaOH pH 7.4 (right). Each value represents the mean ± standard deviation of three independent replicates. Asterisks represent statistical differences compared to buffer-treated cells (Student's *t*-test; *p < 0.05, **p < 0.01 ***p < 0.001). The dashed line represents the limit of detection (10 CFU/ml).