Plazomicin (PLZ) (Achaogen, South San Francisco, CA) is a next-generation aminoglycoside active against multidrug resistant (MDR) Enterobacteriaceae spp., including carbapenem-resistant Enterobacteriaceae (CRE). A four-site evaluation was performed to determine the accuracy and reproducibility of PLZ susceptibility testing against non-fastidious gram-negative organisms using the Thermo Scientific™ Sensititre™ broth microdilution (BMD) method (M07/M100). Compared to the CLSI reference broth microdilution plate when testing PLZ against Enterobacteriaceae spp., this high level of agreement obtained by the Sensititre system and the CLSI/ISO BMD method demonstrates that this is an acceptable method for susceptibility testing of PLZ.

ABSTRACT
Background: Plazomicin (PLZ) (Achaogen, South San Francisco, CA) is a next-generation aminoglycoside active against multidrug-resistant (MDR) Enterobacteriaceae spp., including carbapenem-resistant Enterobacteriaceae (CRE). A four-site evaluation was performed to determine the accuracy and reproducibility of PLZ susceptibility testing against non-fastidious gram-negative organisms using the Thermo Scientific™ Sensititre™ broth microdilution (BMD) method (M07/M100). Compared to the CLSI reference broth microdilution plate when testing PLZ against Enterobacteriaceae spp., this high level of agreement obtained by the Sensititre system and the CLSI/ISO BMD method demonstrates that this is an acceptable method for susceptibility testing of PLZ.

INTRODUCTION
Maximum (Figure 1) in a next-generation aminoglycoside class of compounds, plazomicin is structurally distinct from existing aminoglycosides, including gentamicin. This is a multi-site, companion study was performed to evaluate the performance of plazomicin on the Sensititre system against non-fastidious gram-negative clinical and challenge isolates. This study suggests that this is an acceptable method for susceptibility testing of plazomicin.

MATERIALS AND METHODS
The Sensititre (18-24 hour MIC methods for bacterial growth inhibition) was performed to determine the accuracy and reproducibility of PLZ susceptibility testing against non-fastidious gram-negative organisms using the Thermo Scientific™ Sensititre™ broth microdilution method (M07/M100). Compared to the CLSI reference broth microdilution plate when testing PLZ against Enterobacteriaceae spp., this high level of agreement obtained by the Sensititre system and the CLSI/ISO BMD method demonstrates that this is an acceptable method for susceptibility testing of PLZ.

RESULTS
The overall essential agreement for plazomicin within ±1 log dilution, was 99.5% for the manual method and 99.9% for the auto read method.

INTER-LABORATORY REPRODUCIBILITY
Reproducibility testing results for plazomicin within ±1 log dilution, from the middle MIC method was 99.4% for the auto read and 99.6% for the manual read method.

REFERENCES

