Reviewer's report

Title: Validation of the GenoType(R) MTBDRplus assay for detection of MDR-TB in a public health laboratory in Thailand

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Reviewer: Yasuhiro Suzuki

Reviewer's report:

The manuscript entitled "Validation of the GenoType® MTBDRplus assay for detection of MDR-TB in a public health laboratory in Thailand" by Rapeepun Anekvorapong et al is showing the comparison of GenoType® MTBDRplus assay to Mycobacterial Growth Indicator Tube for Antimycobacterial Susceptibility Testing (MGIT AST) for detection INH resistance, RIF resistance, and MDR-TB in stored acid-fast bacilli (AFB)-positive sputum specimens and isolates. Although their data are secure, there are a few issues to be clarified.

Major issues
1. As authors know that there are several publications on the evaluation of GenoType® MTBDRplus assay. More samples for both INH and RFP resistant tuberculosis should be analyzed to conclude the applicability of this assay.
2. As this manuscript is for the validation of GenoType® MTBDRplus assay, authors should add the sequence results to table 1a & b.

Minor issues
1. As authors know, the ratio of correlation between mutations and drug resistance are different from country to country. For example, katG and/or inhA mutation correlate with less than 70% of INH resistance. Explanation on correlation between mutations and drug resistance in Thailand should be added to "Discussion", if authors intend to say the applicability of GenoType® MTBDR assay in this country.
2. There is no explanation on the correlation between RFP susceptibility and GenoType® MTBDR assay result in the text. Though reader can see it in tables, authors should kindly add this to the text.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.