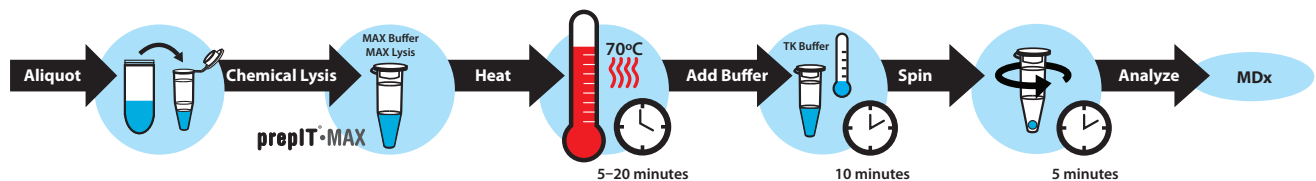


SIMPLE • EFFICIENT • RELIABLE

Maximize *Mycobacterium tuberculosis* (MTb) DNA yield for molecular analysis

preiT[®]•MAX is an extraction kit with a liquid lysis method that increases recovery of *Mycobacterium tuberculosis* DNA without the need for bead beating or sonication.

Extract with preiT•MAX for improved molecular results



Simple	Efficient	Reliable
<ul style="list-style-type: none"> Reduce sample prep time for molecular testing Eliminate bead beating and sonication Increase safety 	<ul style="list-style-type: none"> Consistently higher MTb DNA yield Greater extraction and workflow efficiency Enable automation for MTb DNA extraction 	<ul style="list-style-type: none"> Improve detection of low and moderate positive samples Increase DNA recovery to improve the sensitivity of molecular analysis

Table 1: preiT•MAX compatibility and impact on limits of detection.

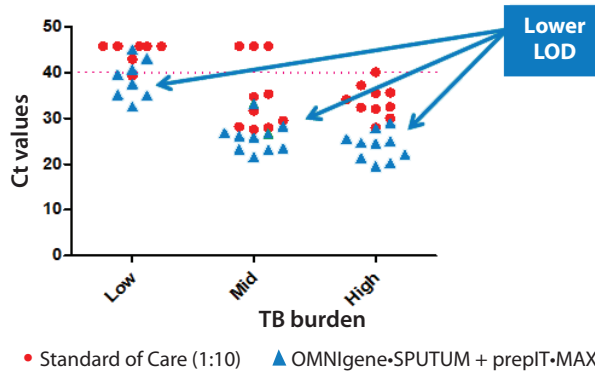
Molecular analysis method	Compatible	Limits of detection (LOD) (as compared to bead beating)
PCR, LAMP	✓	Lower
Hain LPA	✓	Easier calls for low positives
Pyrosequencing	✓	Available from 1 ^o sample; no need to wait for culture



preiT•MAX compatibility and impact on limits of detection

Figure 1: Lower LOD of a CLIA/CLEP approved PCR assay.

preiT•MAX extracted samples show lower Ct values and no inhibition, as compared to standard-of-care samples.



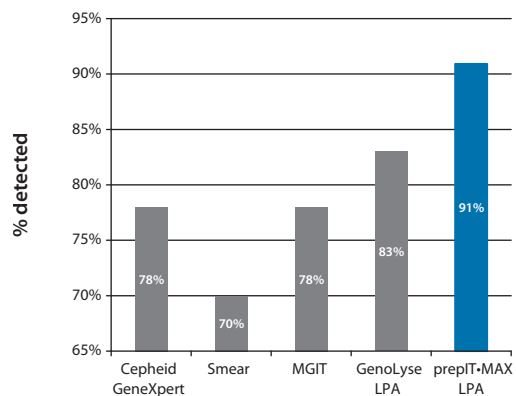
	MTb detected		
	Low	Mid	High
preiT•MAX	88%	100%	100%
Bead beating (1:10 dilution)*	25%	70%	100%

Low n=8; Mid and High n=10

* 1:10 dilution results reported due to inhibition in neat samples

Methods: DNA from duplicate low, mid and high positive FIND sputum samples was extracted using preiT•MAX after treatment with OMNIgene®-SPUTUM or according to standard-of-care NaOH/NALC and bead beating processing. DNA was analyzed by a TaqMan® real-time PCR assay.

Figure 2: Detection rate comparison between methods.



Methods: 23 sputum samples followed standard collection, processing and diagnostic methods to compare the impact of using preiT•MAX as the DNA extraction method prior to detection with the Hain Lifescience MTBDRplus v2.0 line probe assay (LPA). See PD-WP-00047 for more information.

Table 2: preiT•MAX comparison of extraction method vs. bead beating.

Product attributes	preiT•MAX	Bead beating
Shelf-life	1 year	N/A
Liquid reagent	Y	N
Compatible with automation	Y	N
Limits aerosol generation	Y	N
Processing time	20–35 minutes	75 minutes
Increases DNA yield	>90% recovery	20–80% recovery
Reproducible extraction results	Y	N
Decreases molecular inhibition	Y	N
Increases molecular sensitivity	Y	N

Some DNA Genetek products may not be available in all geographic regions. Contact your account representative for more details.

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Patent (www.dnagenetek.com/legalnotices)