**Supplemental Table 1.** Comparison of anti-GPL-core IgA antibody test with the diagnosis (2×2 contingency table).

|                      | Definite | Others |
|----------------------|----------|--------|
| **All (n = 976)**    |          |        |
| Anti-GPL-core IgA antibody (+) | 668      | 31     |
| Anti-GPL-core IgA antibody (−)   | 223      | 54     |
| Total                 | 891      | 85     |
| **Definite/Probable** |          |        |
| Anti-GPL-core IgA antibody (+) | 681      | 18     |
| Anti-GPL-core IgA antibody (−)   | 228      | 49     |
| Total                 | 909      | 67     |
| **Definite/Probable /Possible** | |        |
| Anti-GPL-core IgA antibody (+) | 699      | 0      |
| Anti-GPL-core IgA antibody (−)   | 259      | 18     |
| Total                 | 958      | 18     |

**MAC (n = 930)**

|                      | Definite | Others |
|----------------------|----------|--------|
| Anti-GPL-core IgA antibody (+) | 640      | 30     |
| Anti-GPL-core IgA antibody (−)   | 208      | 52     |
| Total                 | 848      | 82     |
| **Definite/Probable** |          |        |
| Anti-GPL-core IgA antibody (+) | 653      | 17     |
| Anti-GPL-core IgA antibody (−)   | 213      | 47     |
| Total                 | 866      | 64     |
| **Definite/Probable /Possible** | |        |
| Anti-GPL-core IgA antibody (+) | 670      | 0      |
| Anti-GPL-core IgA antibody (−)   | 242      | 18     |
| Total                 | 912      | 18     |

**MAB (n = 46)**
|                        | Definite | Others |
|------------------------|----------|--------|
| Anti-GPL-core IgA antibody (+) | 28       | 1      |
| Anti-GPL-core IgA antibody (−)    | 15       | 2      |
| Total                   | 43       | 3      |

|                        | Definite/Probable | Others |
|------------------------|-------------------|--------|
| Anti-GPL-core IgA antibody (+) | 28       | 1      |
| Anti-GPL-core IgA antibody (−)    | 15       | 2      |
| Total                   | 43       | 3      |

|                        | Definite/Probable /Possible | Others |
|------------------------|-----------------------------|--------|
| Anti-GPL-core IgA antibody (+) | 29       | 0      |
| Anti-GPL-core IgA antibody (−)    | 17       | 0      |
| Total                   | 46       | 0      |

Definition of abbreviations: MAC, *Mycobacterium avium* complex; MAB, *Mycobacterium abscessus* and its subspecies *abscessus*, subsp. *massiliense*, and subsp. *bolletii*. 
Supplemental Figure 1. Differences in anti-GPL-core IgA antibody levels among diagnostic categories of NTM-PD.

Anti-GPL-core IgA antibody levels (U/ml) were compared among “Definite”, “Probable”, “Possible” MAC- or MAB-PD and “Contamination”. Data are presented as box plot. Comparison among groups were conducted by the Steel-Dwass test. *p < 0.05.

Supplemental Figure 2. Relationship between anti-GPL-core IgA antibody levels and NICE scores.

Correlation between anti-GPL-core IgA antibody levels and NICE scores in patients with “possible MAC- or MAB-PD.” Linear regression line (blue) and 95% confidence interval (shaded area) are shown. ρ, Spearman’s rank correlation coefficients (A). NICE scores in anti-GPL-core IgA antibody-positive and -negative patients with “possible MAC- or MAB-PD.” Data are presented as box plot. Comparison between two groups were conducted by the Mann-Whitney U test (B). *p < 0.05.
Supplemental Figure 1

Definite (N=891)  Probable (N=18)  Possible (N=49)  Contamination (N=18)

Anti-GPL core-core IgA antibody (U/mL)

*(p=0.0014)  *(p=0.0216)  *(p=0.0002)

n.s. (p=0.987)  n.s. (p=0.056)  n.s. (p=0.78)
Supplemental Figure 2

A

Anti-GPL-core IgA antibody (U/mL)

NICE score (Pre)

ρ = 0.41
*p = 0.0036

B

NICE score (Pre)

NICE score (Post)

*(p = 0.013)

*(p = 0.011)

Anti-GPL-core IgA antibody

(−) (+) (−) (+)