

1 **Supplementary material**

2 **Fig. S1.** *Mycobacterium smegmatis* mc²155 glycolipids analysis by analytical TLC staining
3 with Coomassie blue. (A) chloroform/methanol/ammonium hydroxide (80:20:2, by vol.)
4 mixture as mobile phase: *Mycobacterium bovis* TDM as standard (GERBU Biotechnik) (lane
5 1), total lipid phase containing major glycolipid (lane 2), purified TDM (lane 3) and purified
6 TMM (lane 4). (B) chloroform/methanol (9:1 by vol.) mixture as mobile phase: total lipid
7 phase containing major glycolipid (lane 1), purified TDM (lane 2) and purified TMM (lane 3)
8 mycolylmannosylphosphorylheptaprenol (Myc-PL) is indicated to the right and left of the
9 plates.

10 **Fig. S2.** SDS-PAGE (A) and immunoblotting (B) analyses of the purified recombinant
11 antigen 85A. (A) (M): molecular weight marker (Fermentas); Lanes 35-39 represent the
12 fraction numbers after the final purification step by size exclusion chromatography. (B) (M):
13 molecular weight marker (Fermentas); lanes 36-40 corresponding to the fraction numbers.

14 **Fig. S3.** Influence of organic solvents on mycolyltransferase reaction. Investigation of the
15 effect of methanol and mixture of chloroform/methanol on the reaction rate with TMM in
16 standard buffer conditions and negative control with TDM in methanol and mixture of
17 chloroform/methanol, respectively. Me, methanol; Cl, chloroform; Sb, standard buffer.

18

19

20

21

22

23

24

25

26

27 **Tables**

28 **Table S1.** Determination of Z' factor from 96-well plate format assays at different volumes.

29 The reaction was carried out with the indicated amount of protein in the reaction mixture,

30 which is described in the materials and methods. The results are an average of 11 experiments

31 of separate negative and positive control.

32

Reaction volume	200 μl	300 μl	350 μl
Z' factor	0.67 \pm 0.021	0.72 \pm 0.014	0.73 \pm 0.012

33

34

35

36

37

38