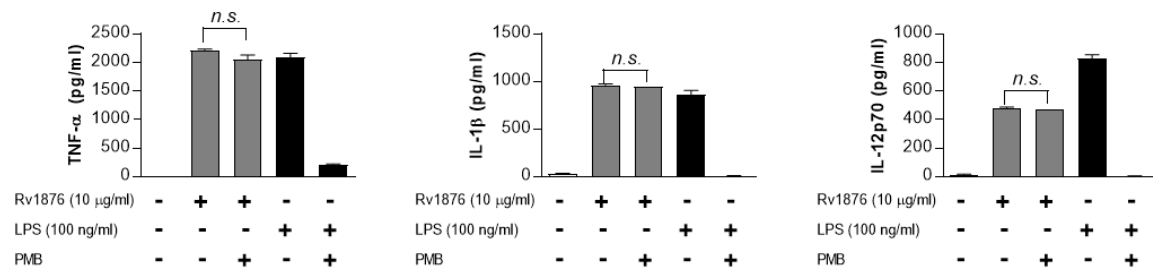
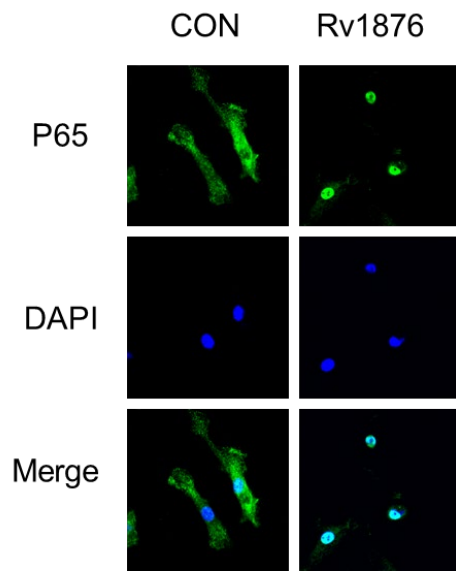


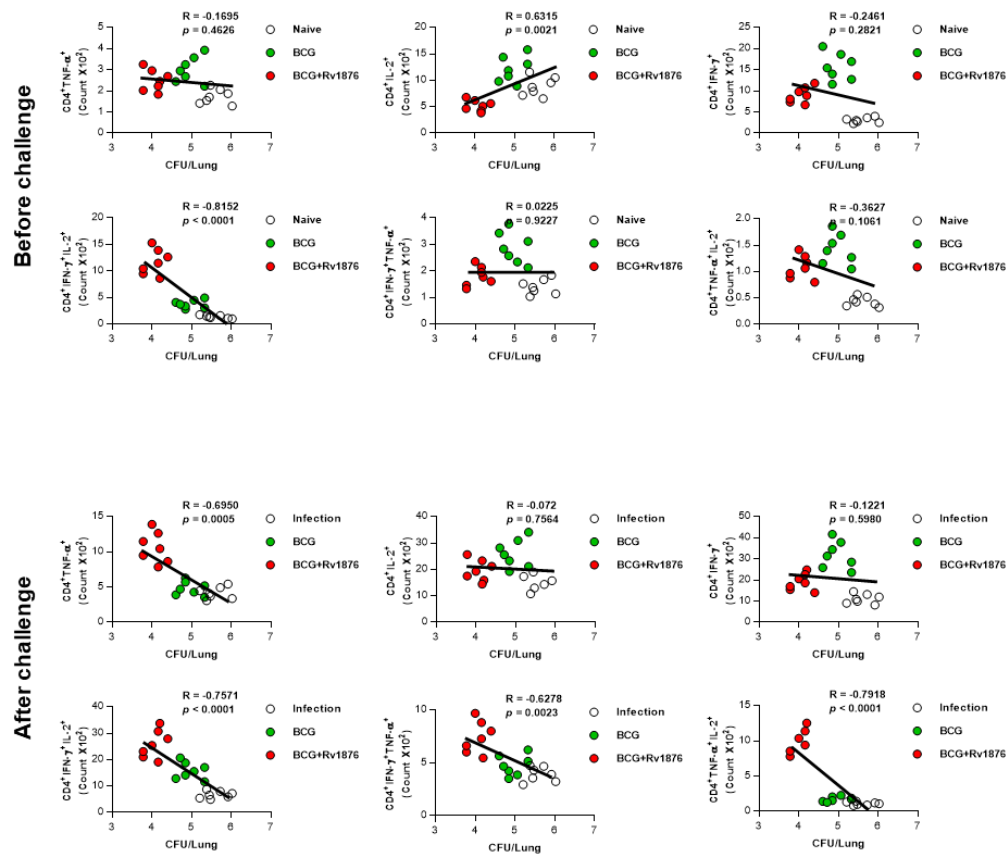
Supplementary Figure S1. Procedure of Multi-dimensional fractionation of Mtb CFP.



Supplementary Figure S2. Confirmation of endotoxin decontamination of the purified Rv1876. DCs were pretreated with polymyxin B (20 μ g/mL) for 1 h prior to stimulation of Rv1876 (10 μ g/mL). LPS (100 ng/mL) was used as control. After 24 h, the quantities of TNF- α , IL-1 β , and IL-12p70 in the culture medium were measured by ELISAs. All data are expressed as mean \pm SD (n = 3) and treatments that showed no significant effect are indicated as *n.s.*



Supplementary Figure S3. Rv1876 enhances p65 nuclear translocation on BMDCs. The BMDC cells on coverslips were treated with Rv1876 for 45 min. Immunoreactivity of the p65 subunit of NF- κ B was determined by immunofluorescence, as described in the Materials and Methods.



Supplementary Figure S4. Analysis of protective correlations for protection level with vaccine-induced immune responses before- and after-challenge. Relationship between protection (CFU) and Rv1876 specific various cytokine combination in $CD4^+CD44^+$ T cells is shown as a fitted regression line with the correlation coefficient. Spearman's r and P values of the correlations are indicated. White circle: Naïve or Infection, green circle: BCG, and red circle: BCG+Rv1876.