Supplementary Figure 1A: Dose titration of peptides for *in-vitro* stimulation

Supplementary Figure 1B
Supplementary Figure 2
Supplementary Figure 3A
Supplementary Figure 3B
Supplementary Figure 4A: Comparison of BCG and BCG-L4.8

In-vitro stimulation → Medium

<table>
<thead>
<tr>
<th>Immunization</th>
<th>TNF-α</th>
<th>IFN-γ</th>
<th>TNF-α</th>
<th>IFN-γ</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCG-L4.8</td>
<td>4.5±0.1</td>
<td>6.2±0.4</td>
<td>5.8±0.2</td>
<td>10.3±1.7</td>
</tr>
<tr>
<td>BCG</td>
<td>2.35±0.25</td>
<td>2.7±0.3</td>
<td>3.2±0.1</td>
<td>5.45±0.3</td>
</tr>
</tbody>
</table>

BCG

Medium L4.8 Isotype

F4.8

Pam2Cys

L4.8

Isotype

CD4 Tcells

Lymphocytes
Supplementary Figure 4B: Comparison of BCG and BCG-L4.8

In-vitro stimulation → Medium → F4.8 → Pam2Cys → L4.8 → Isotype

Immunization

BCG-L4.8

BCG

T-cell responses were measured by interferon-γ (IFN-γ) and tumor necrosis factor-α (TNF-α) production following in-vitro stimulation with F4.8, Pam2Cys, or L4.8. The data represent the mean ± standard deviation (n=3).

- BCG-L4.8:
  - IFN-γ: 9±1
  - TNF-α: 2.3±0.2

- BCG:
  - IFN-γ: 13.8±0.9
  - TNF-α: 2.7±0.3

- F4.8:
  - IFN-γ: 10.5±0.5
  - TNF-α: 3.2±0.1

- Pam2Cys:
  - IFN-γ: 25.4±0.5
  - TNF-α: 5.3±0.4

- L4.8:
  - IFN-γ: 0.0
  - TNF-α: 0.0

- Isotype:
  - IFN-γ: 0.0
  - TNF-α: 0.0
Supplementary Figure 4C: Comparison of BCG and BCG-L4.8
Supplementary Figure 4D: Comparison of BCG and BCG-L4.8