Supporting Information

Table S1. Primers used in this study

Name	Sequence (5’ end to 3’ end)
$ITEP_A$-F	CGTGCTGCCGGGTGTTGGCGGTGTGTTACCAGGCGTCGGGGGTGTGC TGCCGGGCGTTGGTGGTGTCTTGCCTGGCGTAGGAGG
$ITEP_A$-R	TCCTACGCCAGGCAAGACACCACCAACGCCCGGCAGCACACCCCCGA CGCCTGGTAACACACCGCCAACACCCGGCAGCACGCC
$ITEP_B$-F	CGCGGGTGTGCCGGGCGGCGCCGGTGTTCCAGGGGGCGCGGGTGTG CCGGGAGGCGCAGGTGTCCCTGGGGGCGCTGGTGTACCGGGAGG
$ITEP_B$-R	TCCCGGTACACCAGCGCCCCCAGGGACACCTGCGCCTCCCGGCACAC CCGCGCCCCCTGGAACACCGGCGCCGCCCGGCACACCCGCGCC
sMMP-pOVA-F	GCCTCTGGGTCTGGCAGGTAGCATTATTAACTTTGAAAAACTGTAAGG
sMMP-pOVA-R	TTACAGTTTTTCAAAGTTAATAATGCTACCTGCCAGACCCAGAGGCCC
pOVA-F	GGAGAGTATAATCAACTTTGAAAAACTGTAAGG
pOVA-R	TTACAGTTTTTCAAAGTTGATTATACTCTCCCC

Figure S1.

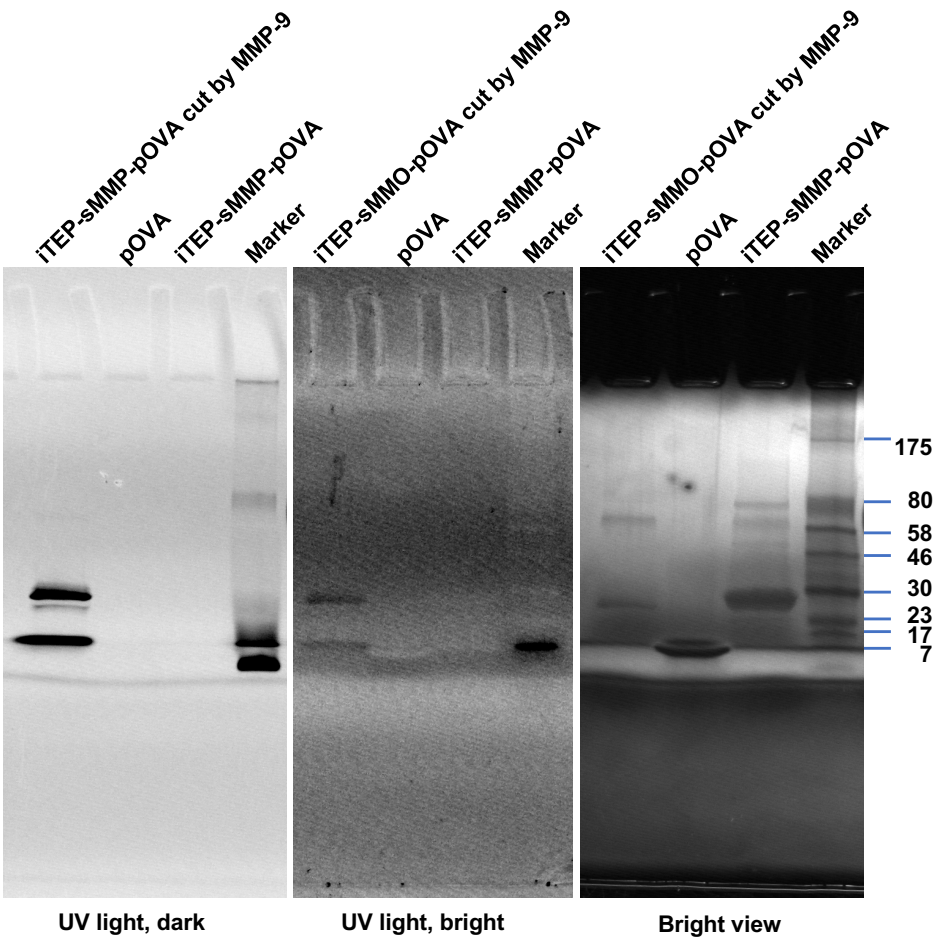

Figure S1. The enzyme digestion product of iTEP-sMMP-pOVA by MMP-9 is pOVA. The fluorescein labeled iTEP-sMMP-pOVA (2 μg) was digested with MMP-9 and run together with free pOVA (80 μg), uncut iTEP-sMMP-pOVA (20 μg) on a SDS-PAGE. The picture of the gel was taken under UV light in dark, UV light in bright, and bright view condition.

Figure S2.

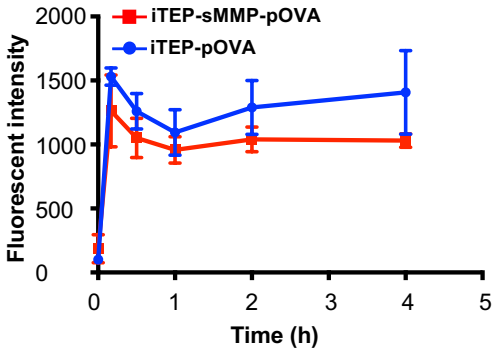

Figure S2. Inhibition of cellular uptake of iTEP vaccines by DCs. DC 2.4 cells were incubated with 10 μM of fluorescein-labeled iTEP vaccines in FBS free medium at 4 °C for extended time. The fluorescent intensity of the cells were plotted with the time extension. The fluorescein-labeled iTEP vaccines bound to the surface of DC cells after 10 min of incubation at 4 °C. However, there was no increase of fluorescent intensity when the cells were incubated from 10 min to 4 h at 4 °C, indicating that the uptake of iTEP vaccines was inhibited in this situation.

Figure S3.

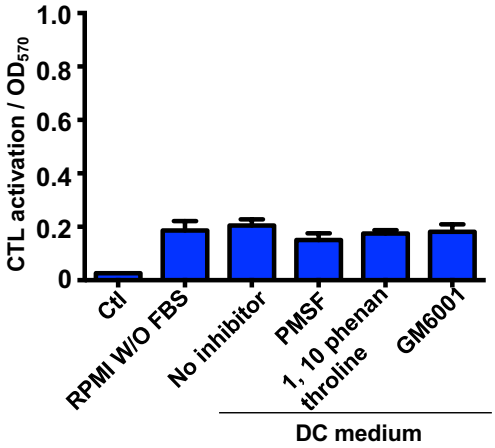

Figure S3. MMP inhibitors have no effect on the direct loading of pOVA released from iTEP-pOVA. DC-cultured medium was pretreated with inhibitors such as PMSF (5 mM), 1,10 phenothroline (20 mM), or GM6001 (0.1 mM) at 37 °C for 2 h. Then iTEP-pOVA was incubated with RPMI medium without FBS, or DC-cultured medium with or without inhibitors at 37 °C for 16 h before loading to DC2.4 cells on ice. After 30 min of ice incubation, the DC2.4 cells were washed, fixed, and then mixed with B3Z cells for B3Z activation.