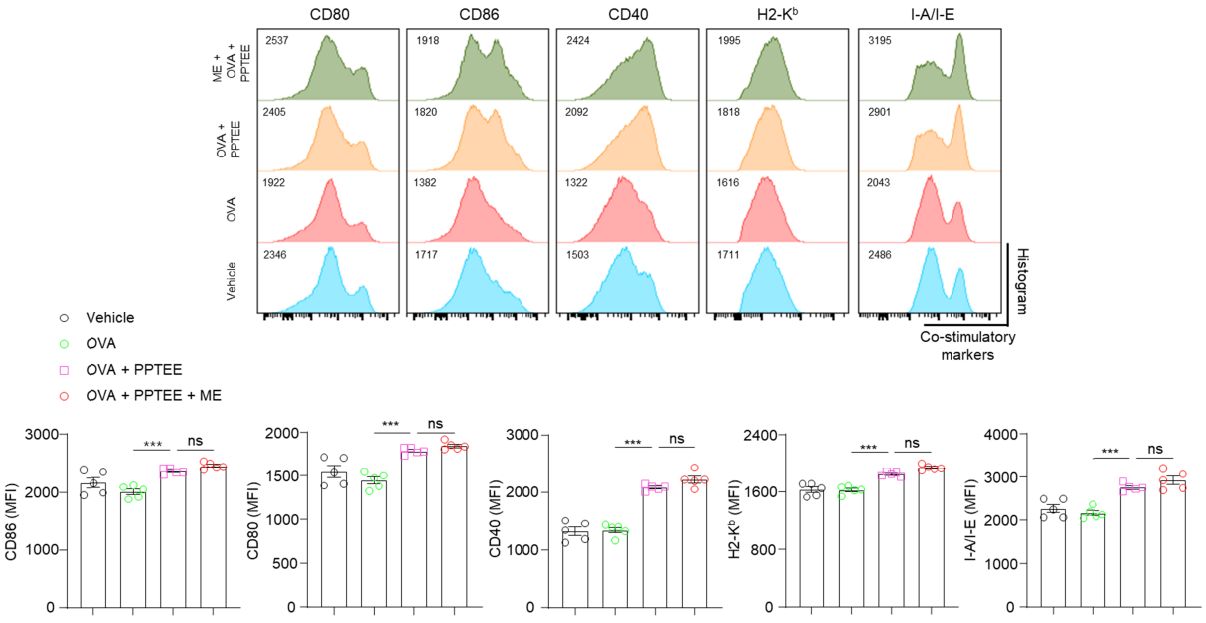

Figure S1. ME formulation has little effect on the activation of antigen-presenting cells by PPTEE-glucan in vitro. The BMDC were stimulated with OVA alone, OVA + PPTEE and OVA + PPTEE + ME for 24 hrs. Representative histograms and MFI of co-stimulatory markers (CD80, CD86, CD40, H2-K^b and I-A/I-E) on BMDC were analyzed by flowcytometry. Data are presented as mean ± SEM (n = 5).

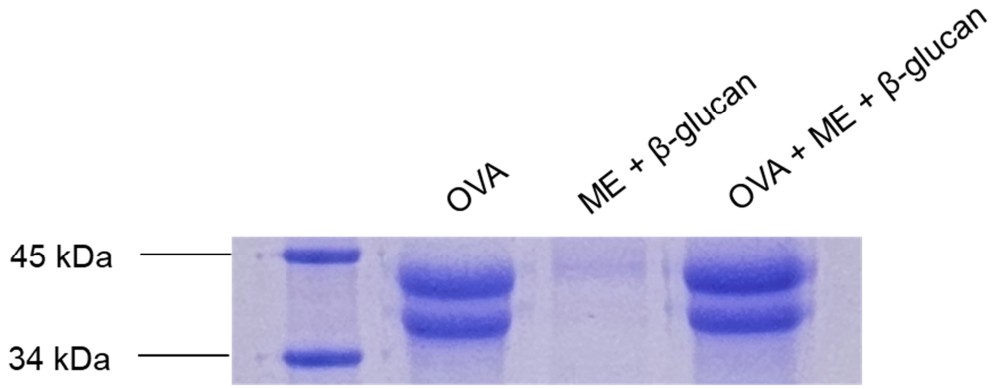

Figure S2. OVA + ME contains a similar amount of OVA compared to the OVA-only control. OVA contents in OVA, ME + β-glucan and OVA + ME + β-glucan samples were assessed by using Coomassie Blue staining.

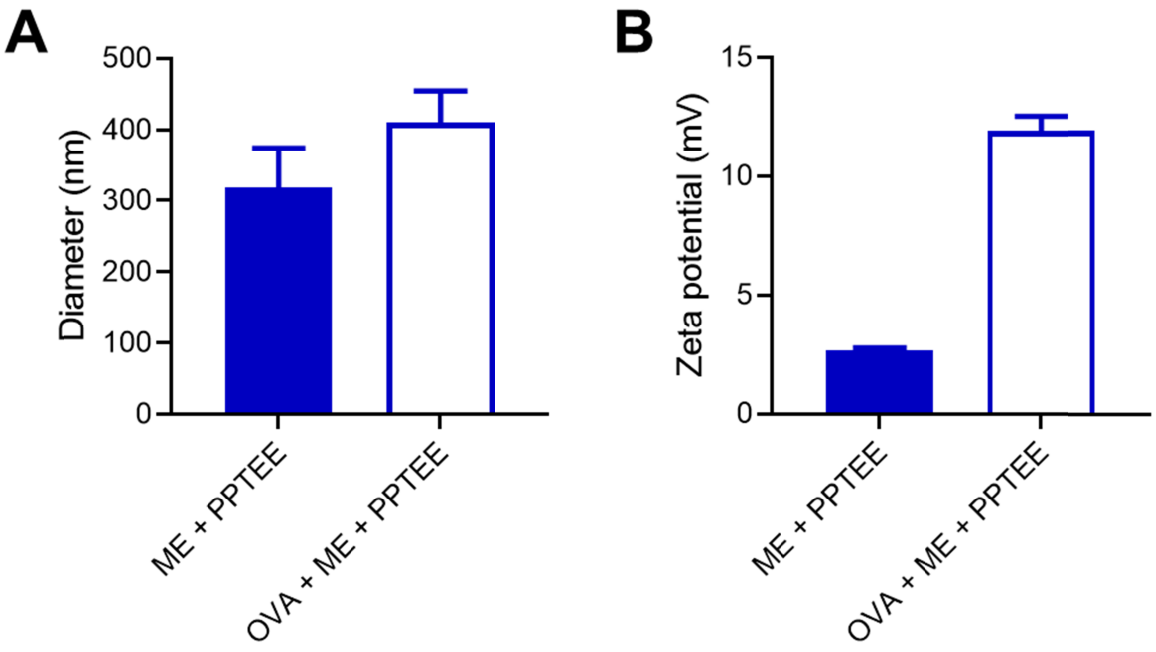

Figure S3. Particle properties of ME formulations. (A) Hydrodynamic size values (according to the intensity distribution data) of ME + PPTEE and OVA + ME + PPTEE. (B) Zeta potential data of ME + PPTEE and OVA + ME + PPTEE. Data are presented as mean ± SD (n = 3).

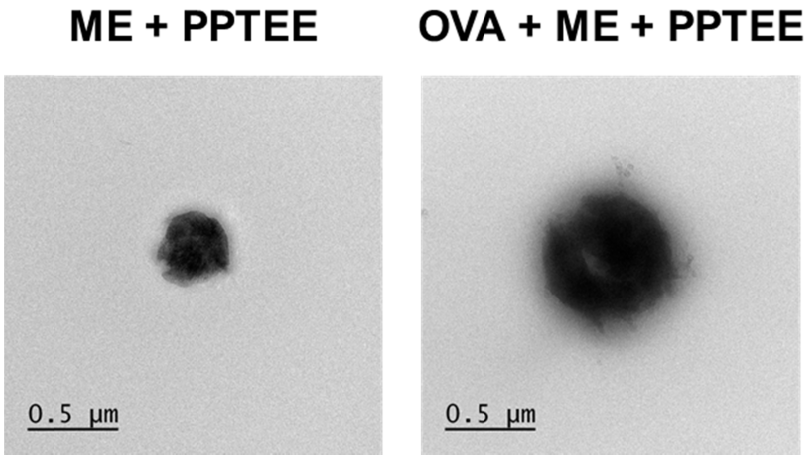

Figure S4. TEM images of ME + PPTEE and OVA + ME + PPTEE groups. Bar graph: 500 nm.

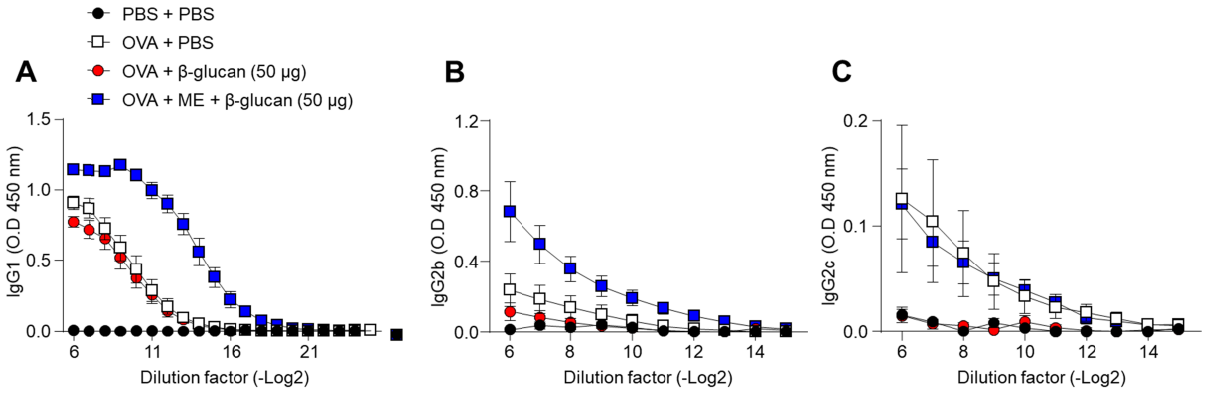

Figure S5. Un-formulated OVA + β-glucan failed to vaccinate the mice. Mice were intramuscularly injected 3 times for every 2 weeks with OVA, OVA + β-glucan and OVA + ME + β-glucan, respectively. Serum collected 42 days post first vaccination, and serum IgG1 (A), IgG2b (B) and IgG2c (C) were measured using ELISA. Data are presented as mean ± SEM (n = 5).