Supporting Information

Contents

HPLC traces of rapamycin in liposomes	S2
Size distribution of liposomes	S4
OVA antibody titers after 6 weeks of sensitization	S5

HPLC traces of rapamycin in liposomes

System: Agilent Technologies 1100 series, quaternary pump, auto sampler, UV detector at 278 nm. Column: Alltech C18, 5 μm, 4.6 × 150 mm. A: H_2O + 0.1% TFA; B: 95% MeCN/ H_2O + 0.1% TFA.

Gradient: 0% B → 5% B (2 min); 5% B → 100% B (10 min); 100% B (6 min); 100% B → 5% B (5 min); 5% B → 0% B (2 min); flow rate: 1 mL/min.

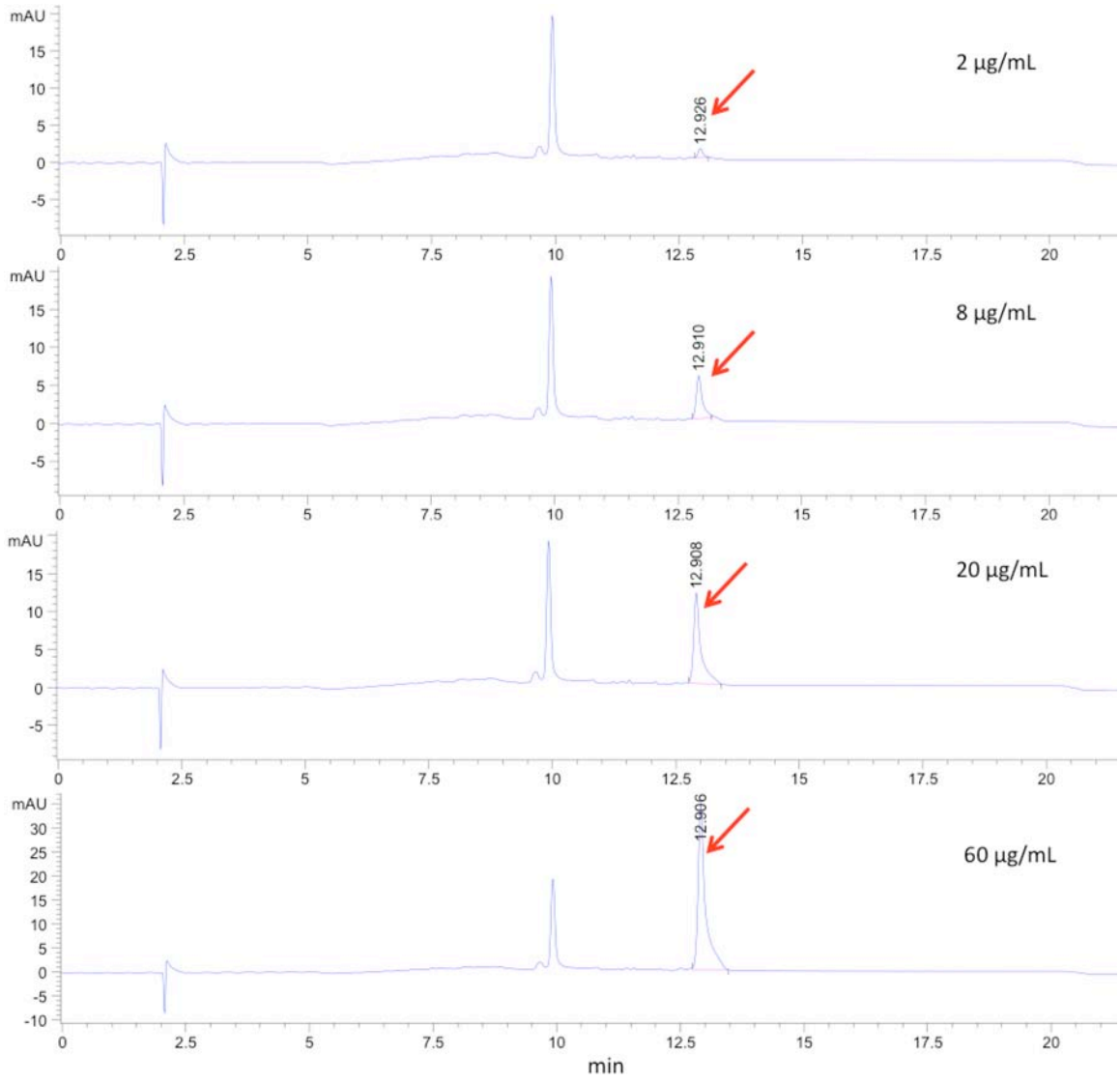

Figure S1. HPLC traces of rapamycin encapsulated liposomes at different concentrations. Retention time of rapamycin is at 12.9 min.

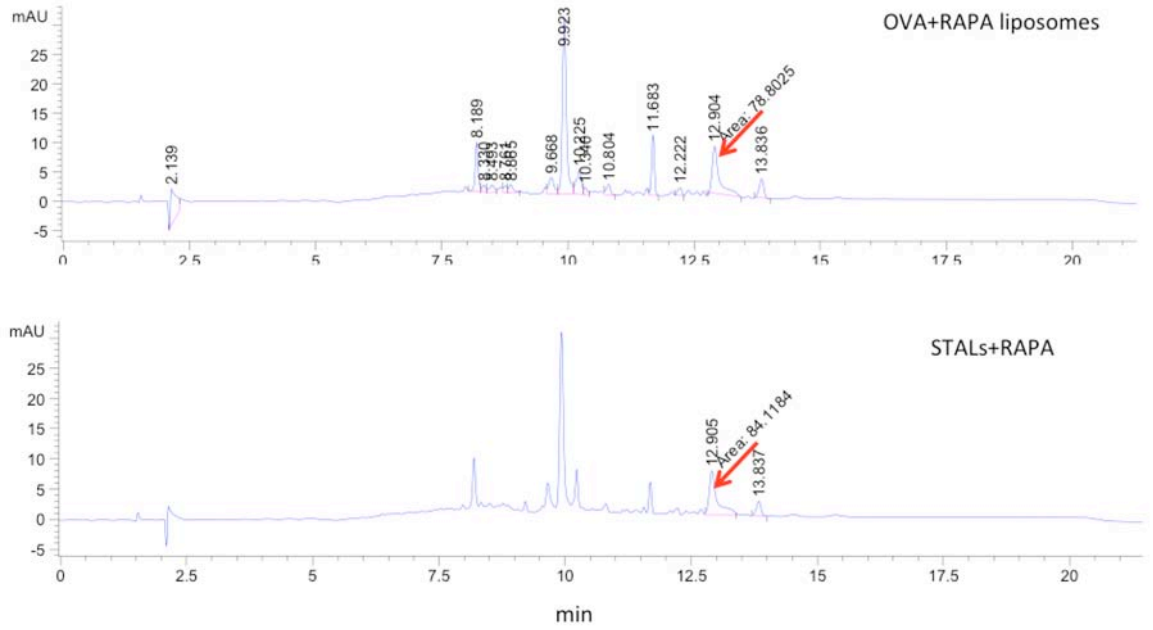

Figure S2. HPLC traces of OVA+RAPA liposomes and STALs+RAPA, both with lipid composition as DSPC/Chol/PEG-DSPE (88:7:5). The liposomes were diluted with acetonitrile to release encapsulated rapamycin, and then filtered through 0.45 μm PVDF syringe filter for HPLC analysis.

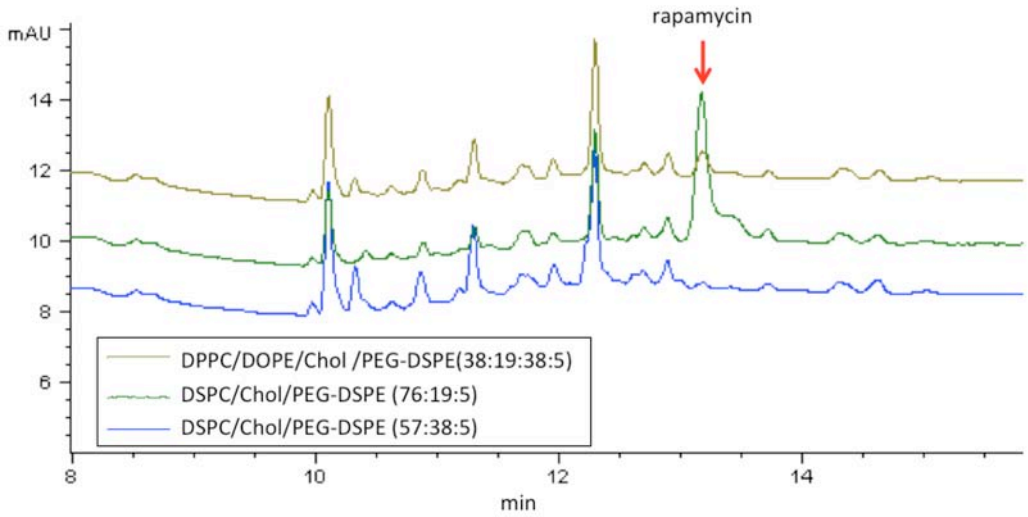

Figure S3. Overlay of HPLC traces of RAPA encapsulated liposomes with different lipid compositions. The liposomes were diluted four times with acetonitrile to release rapamycin. Different phospholipids, such as DPPC, DOPE, DSPC, didn't provide much difference in RAPA encapsulation ability, however, reduced cholesterol content showed major influence on rapamycin encapsulation.

Size Distribution of liposomes

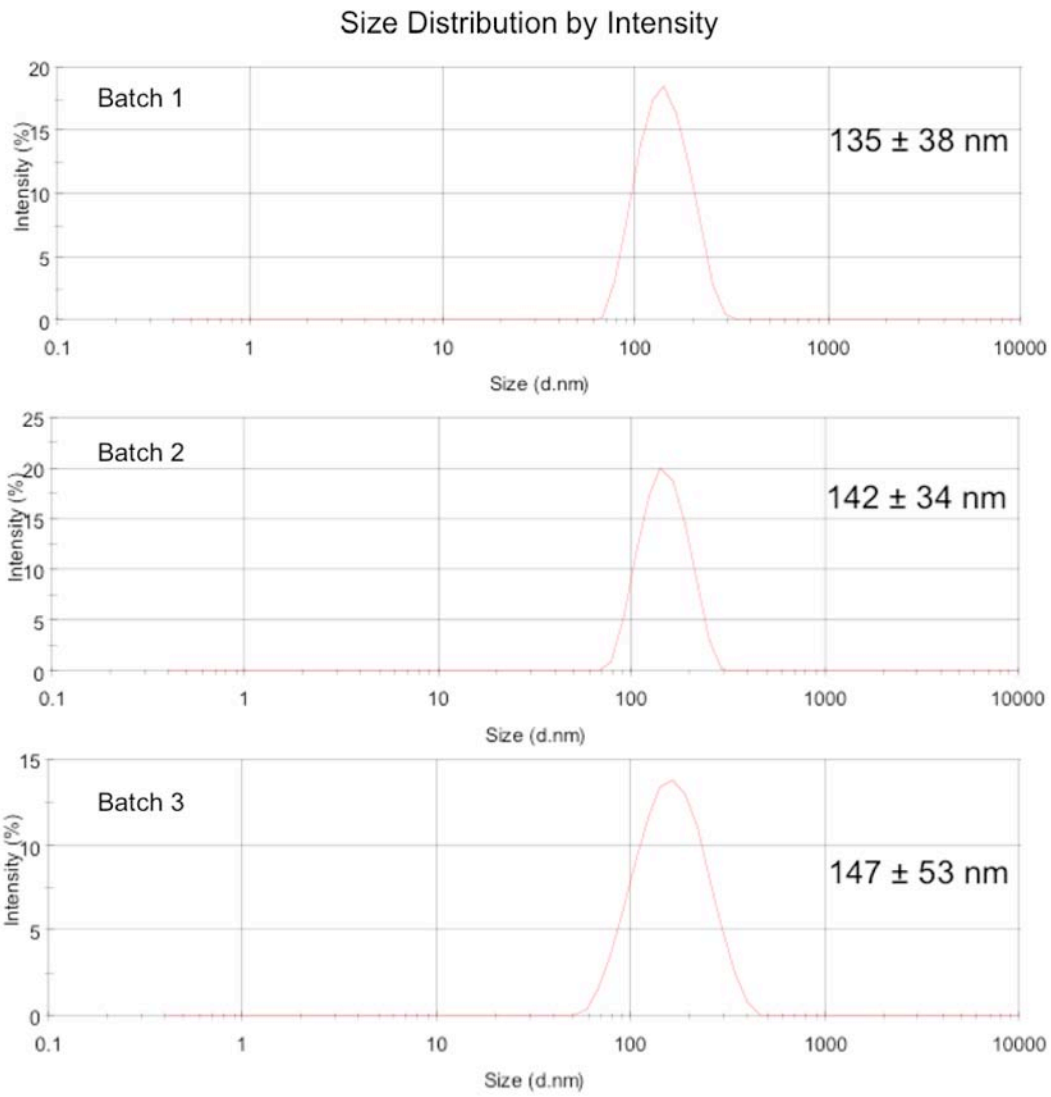

Figure S4. Size distribution of different batches of HEL-liposomes measured by dynamic light scattering. The general size distribution of the prepared liposomes is in the range of 100-200 nm.

OVA antibody titers over 6 weeks of sensitization

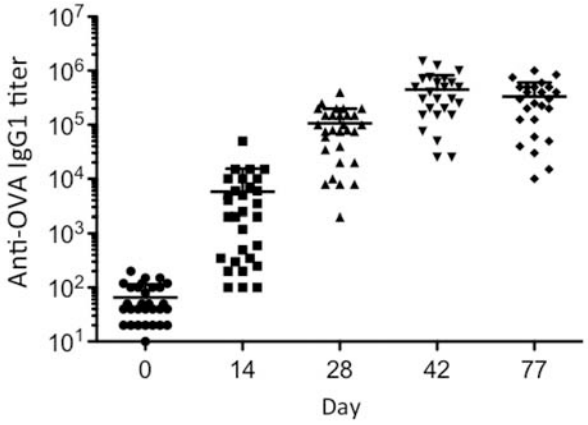

Figure S5. Anti-OVA IgG1 titers of the sensitized mice before liposome treatment. Based on the anti-OVA IgG1 titers, the mice were divided into 5 groups with similar mean values of antibody titers.