572   **eSupplement**

(A)

(B)

(C)

(D)

Nanoallergen Diameter	Epitope % Loading	Epitope % Incorporation
100 nm	1%	95%
100 nm	2%	90%
100 nm	4%	93%
200 nm	1%	83%
200 nm	2%	92%
200 nm	4%	84%
200 nm	4% (2% each Epitope 3 & 4)	81-84%

*Unless otherwise noted, all data shown is for incorporation of epitope 3. Epitope % Loading is stoichiometric percent of total lipids. Epitope % Incorporation is based on AUC from HPLC chromatogram of epitope-lipid: (AUC Post-LEP)/(AUC Pre-LEP)*100%
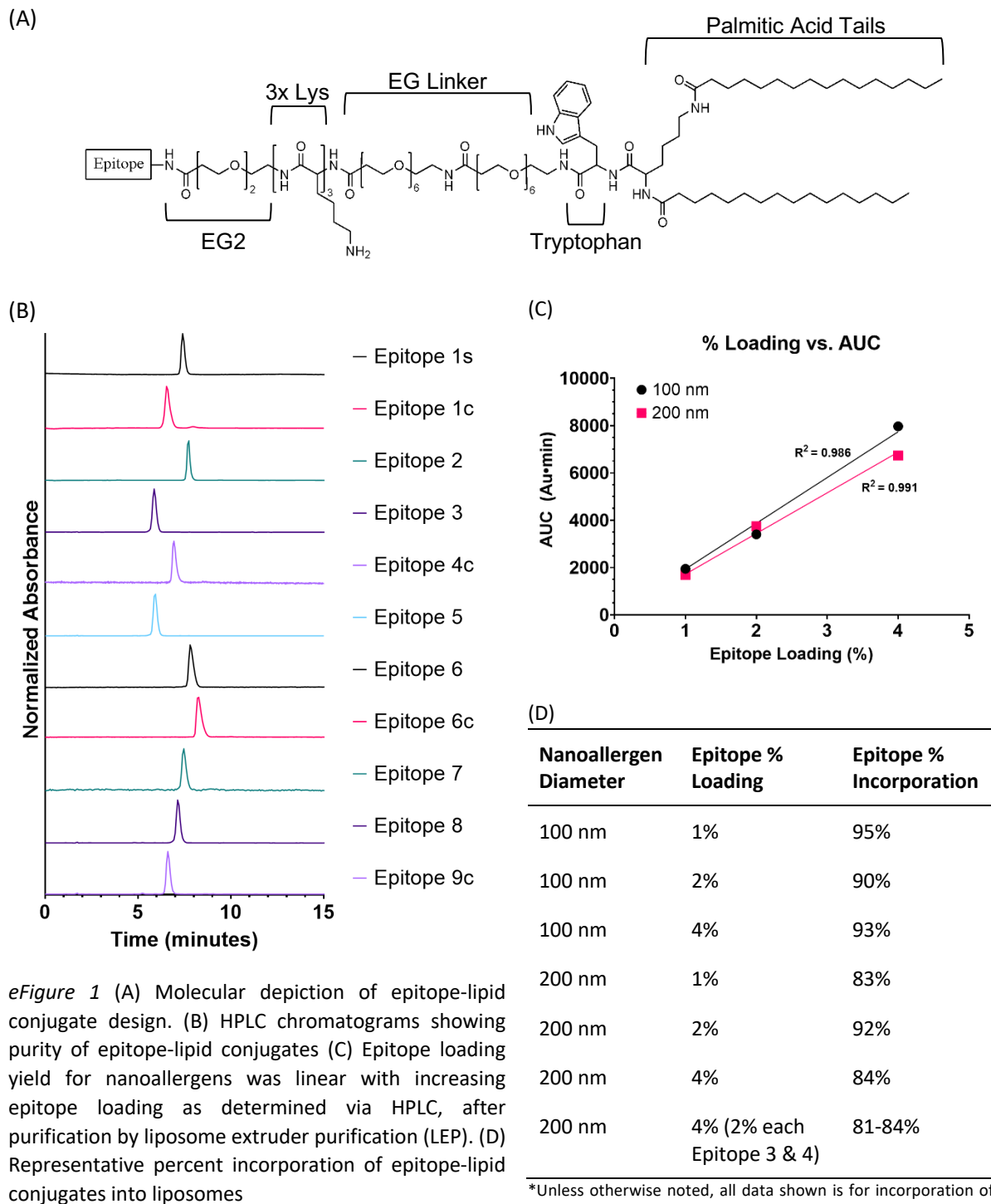
eFigure 1 (A) Molecular depiction of epitope-lipid conjugate design. (B) HPLC chromatograms showing purity of epitope-lipid conjugates (C) Epitope loading yield for nanoallergens was linear with increasing epitope loading as determined via HPLC, after purification by liposome extruder purification (LEP). (D) Representative percent incorporation of epitope-lipid conjugates into liposomes

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574 *eTable 1. Mass spectrometry characterization of epitope-lipid conjugates*

Epitope	Expected	Found	Notes
1s	2802.8	2803.8	linear
1c	4030.4	4032.5	cyclized
2	2902.8	2903.8	cyclized
3	3108.0	3108.0	linear
4	4096.4	4097.5	cyclized
5	3086.0	3086.0	linear
6	3048.9	3049.8	linear
6c	2839.7	2840.8	cyclized
7	4101.3	4103.3	cyclized
8	3404.3	3404.1	linear
9	3213.2	3213.0	cyclized

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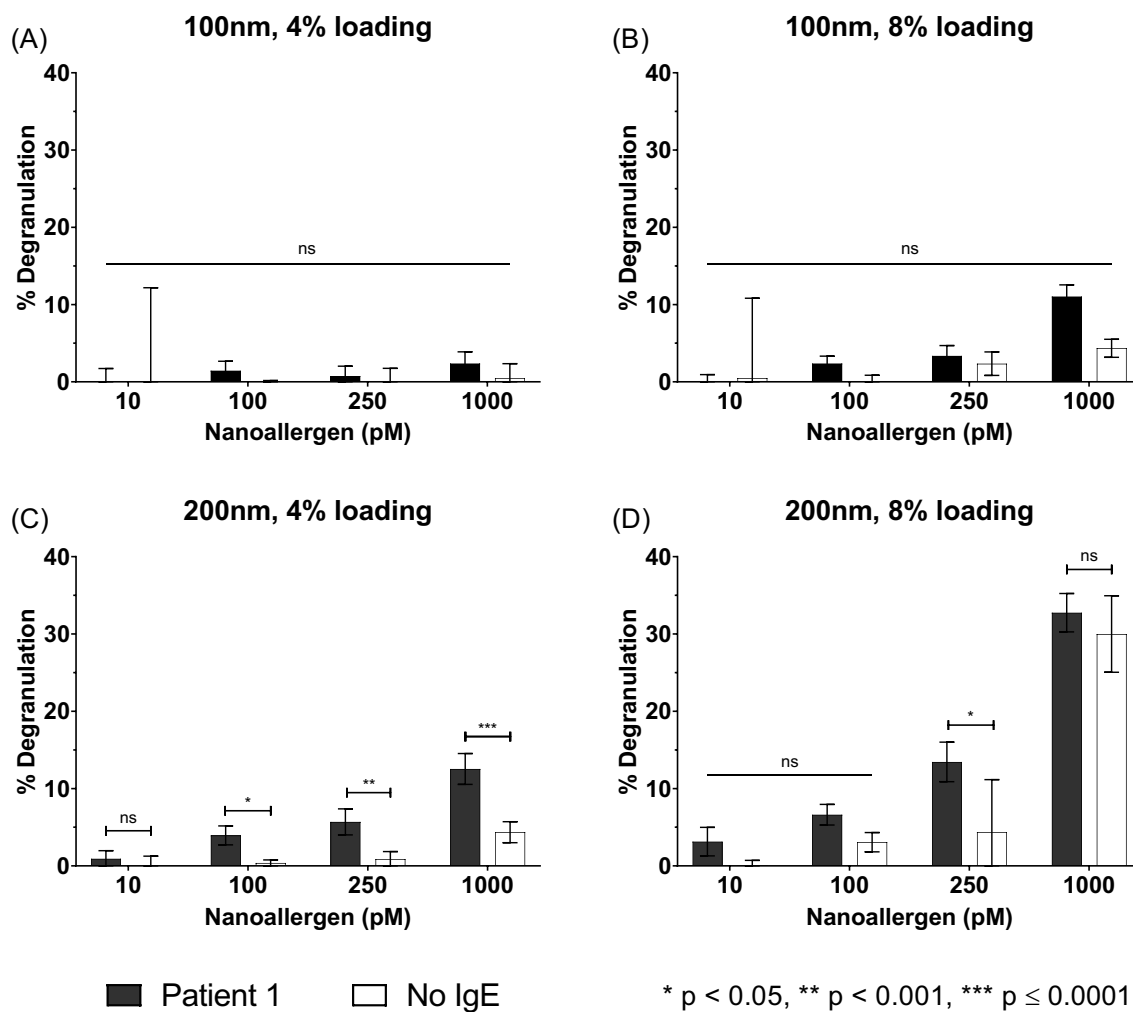
eFigure 2. Nanoallergens loaded with epitopes 1c, 3, 4, & 8 (combination-2) used to determine optimal size and total percent loading of nanoallergens.