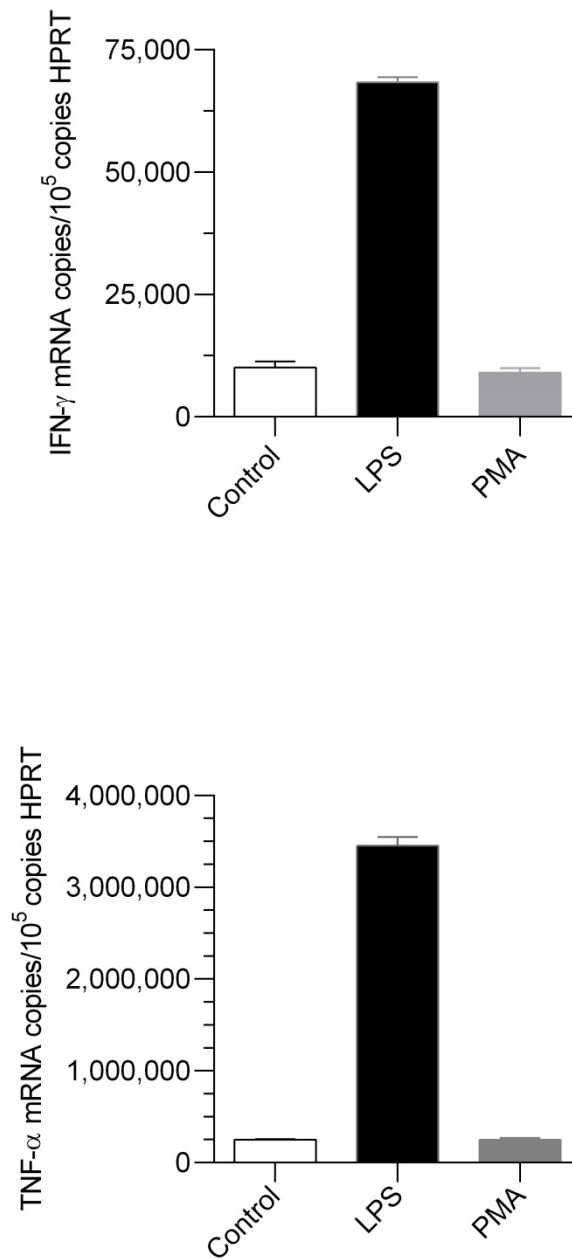


Supplementary Figure 1:



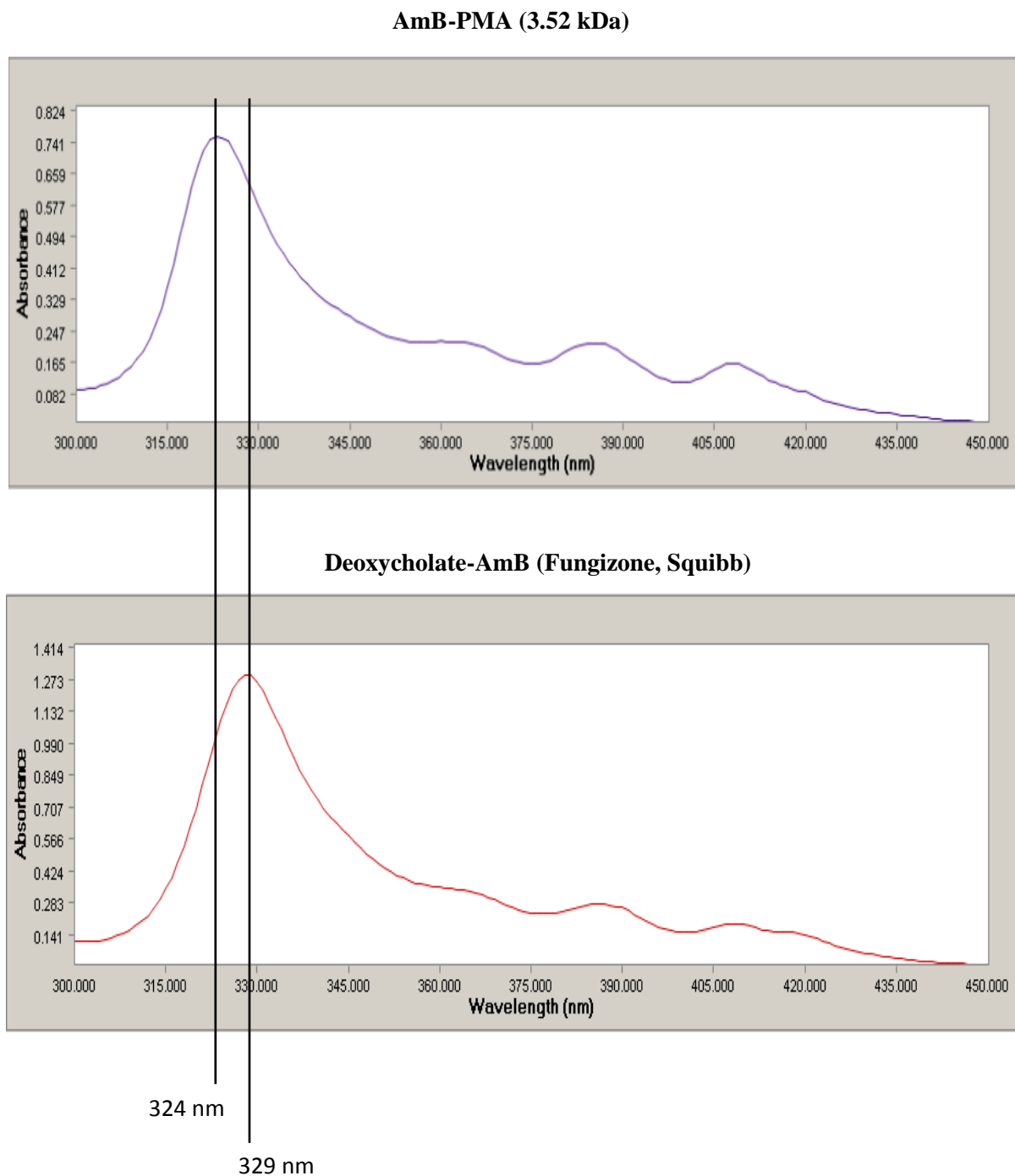
Lack of a pro-inflammatory effect of PMA-Na on monocyte derived macrophages:

PMA (3.52 kDa) was incubated with monocyte-derived-macrophages for 3 h at 25 µg/ml. It did not stimulate IFN-γ or TNF-α (n = 9). Similar results were obtained with 1.27 kDa, 1.7 kDa, 7.75 kDa and 18.5 kDa PMA.

Supplementary Figure 2:

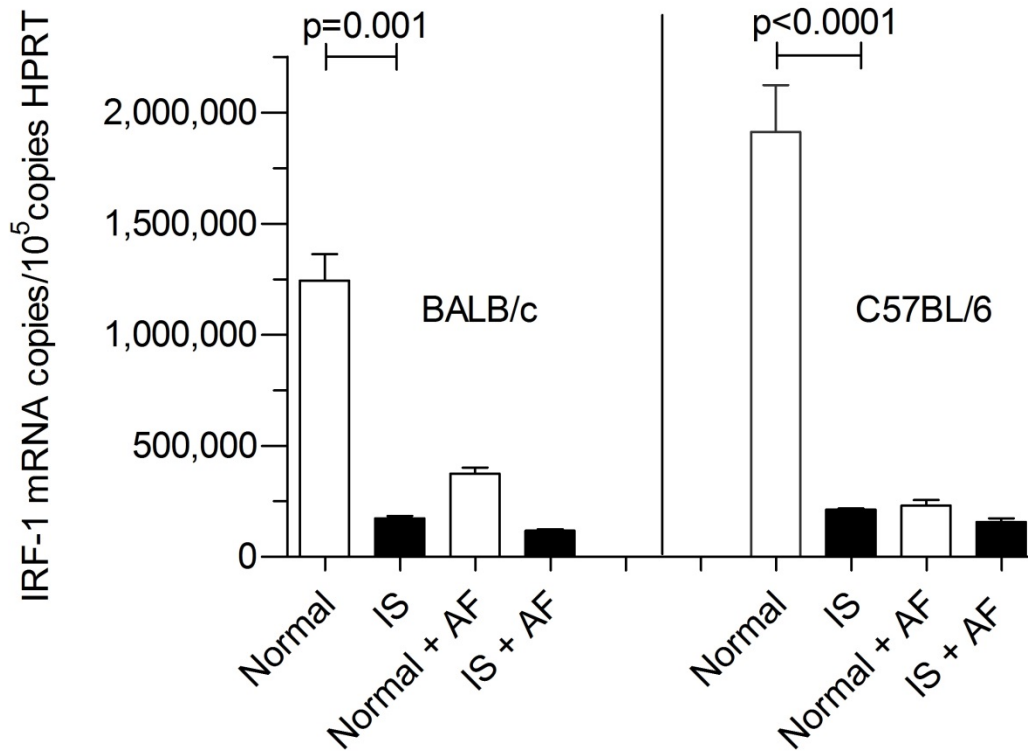
UV spectra of AmB-PMA (3.52 kDa) and deoxycholate-AmB (Fungizone, Squibb).

The pale yellow powders were reconstituted in water at a final concentration of 10 $\mu\text{g/ml}$ AmB.



The AmB is highly aggregated in both deoxycholate-AmB (Fungizone, Squibb) and in liposomal AmB (Ambisome, Gilead). The λ_{max} of the UV spectra of deoxycholate-AmB was 329 nm (shown in red) and of liposomal AmB was 324 nm (not shown; see Reference 6). The λ_{max} of the UV spectra of AmB-PMA (3.52 kDa) (AP) was 324 nm (shown in blue). Similar results were obtained with 1.27 kDa, 1.7 kDa, 7.75 kDa and 18.5 kDa PMA.

Supplementary Figure 3:



Comparison of IRF-1 in BALB/c and C57BL/6 mouse lung at day +2:

Immuno-suppression caused a large and significant suppression of Interferon Regulatory Factor (IRF) -1 that did not change after infection, or with AF pre-exposure prophylaxis (n = 4).

For BALB/c mice:

Normal IRF-1 = $1.24 \times 10^6 \pm 118,500$ copies/10⁵ copies HPRT; IS + AF IRF-1 = $118,000 \pm 7,890$ copies/10⁵ copies HPRT.

For C57BL/6 mice:

Normal IRF-1 = $1.91 \times 10^6 \pm 210,800$ copies/10⁵ copies HPRT; IS + AF IRF-1 = $157,300 \pm 16,200$ copies/10⁵ copies HPRT.

Supplementary Table 1:

Isolate	Name	AmB-PMA	AmB-PMA	AmB-PMA	AmB-PMA	AmB-PMA	Fungizone
		(1.27 kDa)	(1.7 kDa)	(3.52 kDa)	(7.75 kDa)	(18.5 kDa)	
		MIC ($\mu\text{g/ml}$)	MIC ($\mu\text{g/ml}$)	MIC ($\mu\text{g/ml}$)	MIC ($\mu\text{g/ml}$)	MIC ($\mu\text{g/ml}$)	MIC ($\mu\text{g/ml}$)
J1	<i>A. fumigatus</i>	0.25	0.25	0.125	0.125	0.5	0.125
J2	<i>A. fumigatus</i>	0.25	0.25	0.125	0.125	0.25-0.5	0.25
J3	<i>A. fumigatus</i>	0.125	0.125	0.0625	0.0625	0.25	0.0625
J4	<i>A. fumigatus</i>	0.25	1.0	0.125	0.125	0.5	0.125-0.25
J5	<i>A. fumigatus</i>	0.25	1.0	0.125	0.125	0.5	0.125-0.25
HH-7	<i>A. fumigatus</i>	1.0	0.25	0.5	0.5	2.0	0.5
HH-12	<i>A. fumigatus</i>	0.5	0.25	0.25	0.25	1.0	0.25-0.5
HH-23	<i>A. fumigatus</i>	0.25	0.5	0.125	0.125	0.5	0.125-0.25
HH-24	<i>A. fumigatus</i>	0.5	0.5	0.25	0.25	1.0	0.25
HH-55	<i>A. fumigatus</i>	0.25	0.0625	0.125	0.125	0.25	0.125
CEA10	<i>A. fumigatus</i>	0.0625	0.25	0.0312	0.0312	0.125	0.0312

Summary of the MIC test results shown above:

Nanoparticle	Range of MICs ($\mu\text{g/ml}$)	Mean of MICs ($\mu\text{g/ml}$)
AmB-PMA (1.27 kDa)	0.0625 - 1	0.25
AmB-PMA (1.7 kDa)	0.0625 - 1	0.25
AmB-PMA (3.52 kDa)	0.0312 - 0.5	0.125
AmB-PMA (7.75 kDa)	0.0312 - 0.5	0.125
AmB-PMA (18.5 kDa)	0.125 - 2	0.5 - 1.0
Fungizone	0.0312 - 0.5	0.25

The antifungal activity of the different AmB-PMAs was determined against 11 isolates of *A. fumigatus* up to a final concentration of 16 $\mu\text{g/ml}$. AmB-PMA (1.27 kDa & 1.7 kDa) had the same MIC as Fungizone (0.25 $\mu\text{g/ml}$). In contrast, AmB-PMA (3.52 & 7.75 kDa) had better antifungal activity at 0.125 $\mu\text{g/ml}$ when compared to Fungizone. The anti-fungal activity of the AmB-PMA (18.5 kDa) was 0.5 - 1 $\mu\text{g/ml}$.