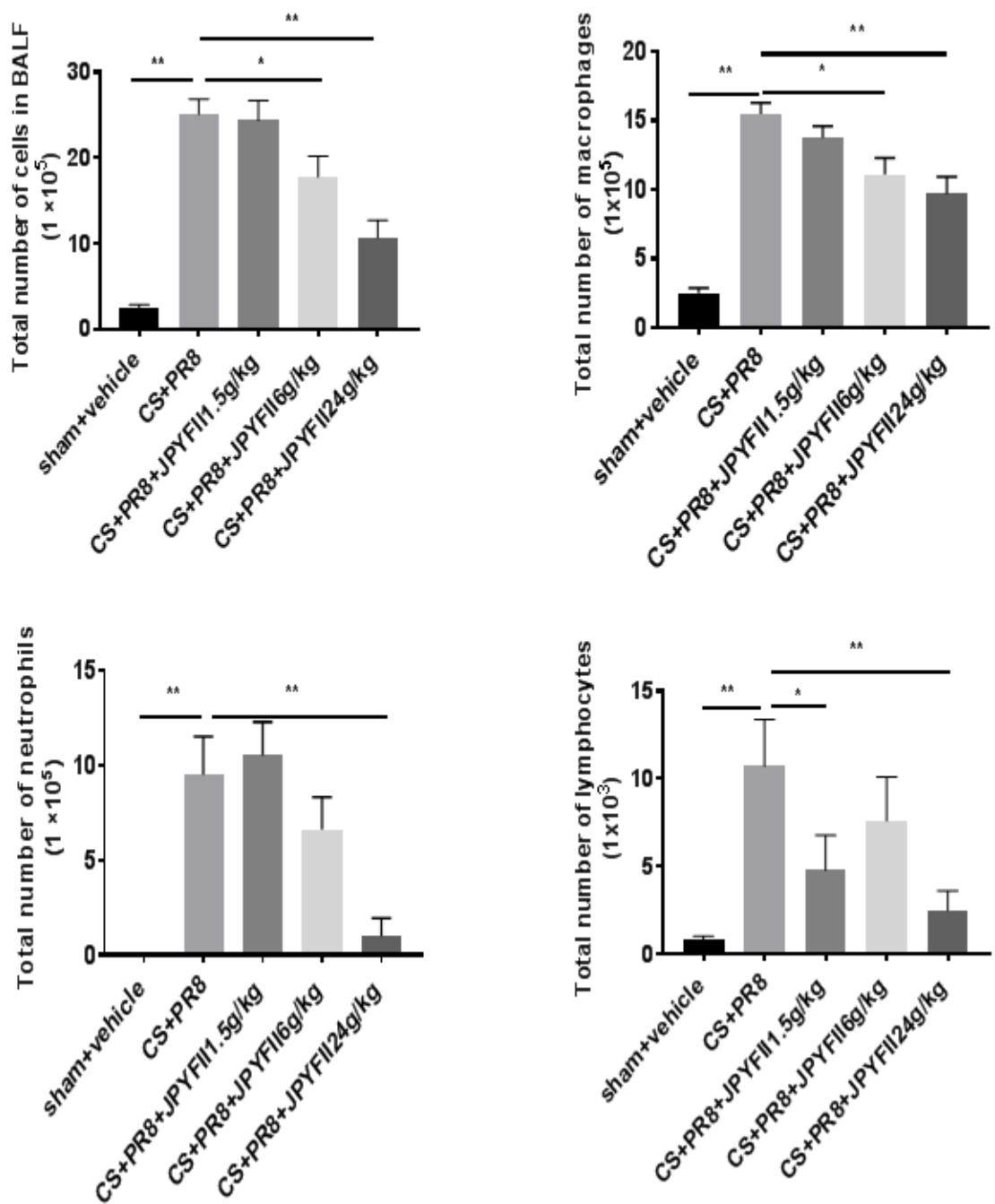


**Figure S1** *JPYFII* formulation reduced BALF cells of CS and IAV exposed mouse in dose-dependent manner.



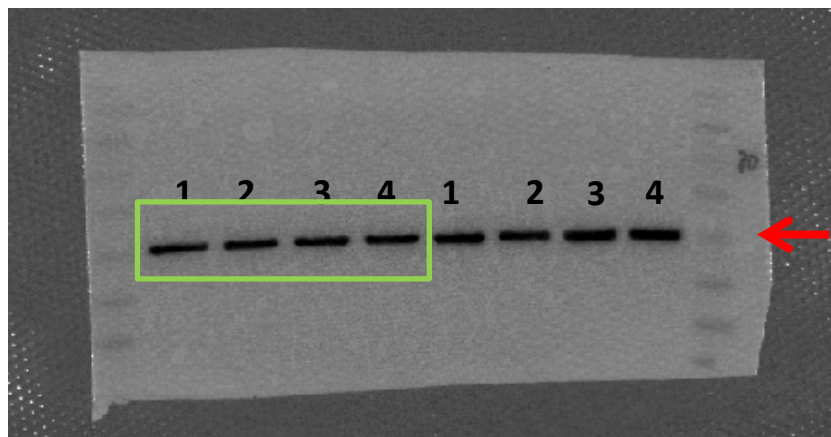
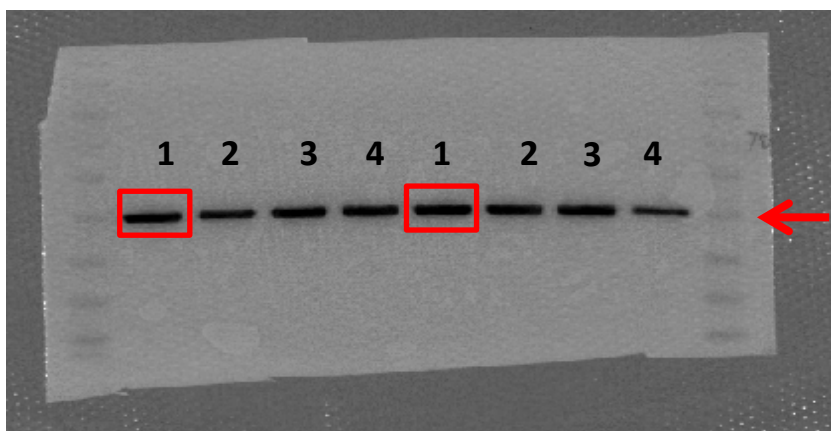
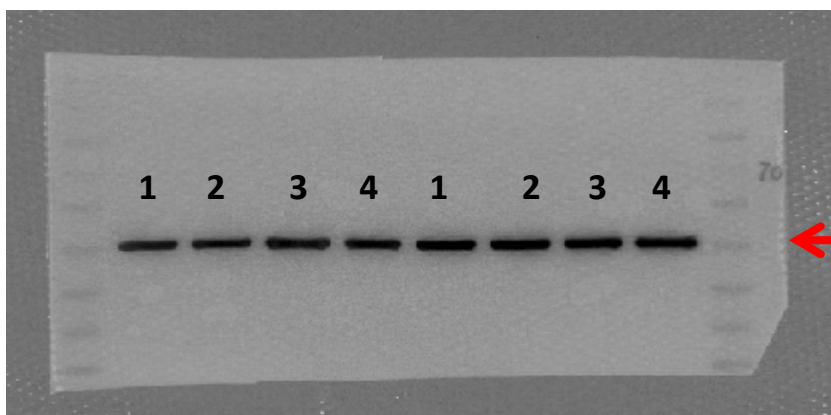
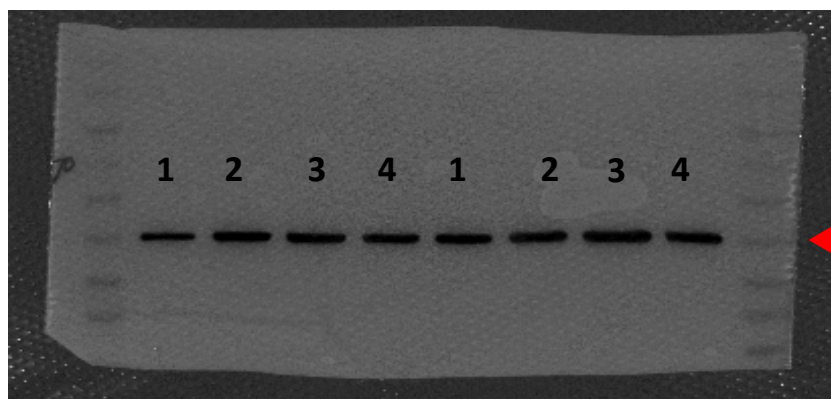
**Figure S2** *Original bands of Western blots*

**$\beta$ -actin**

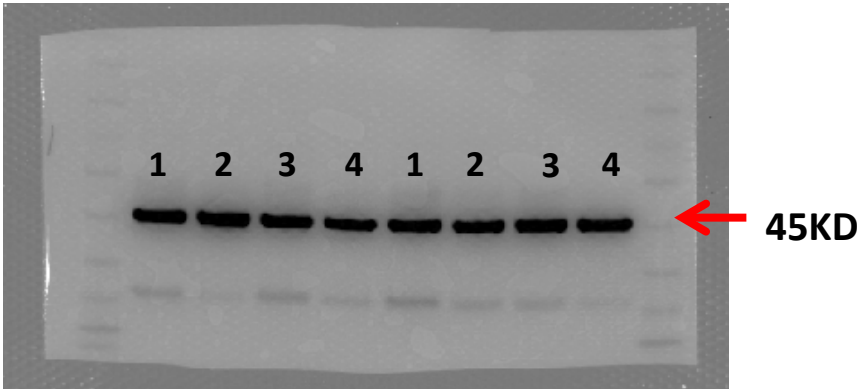
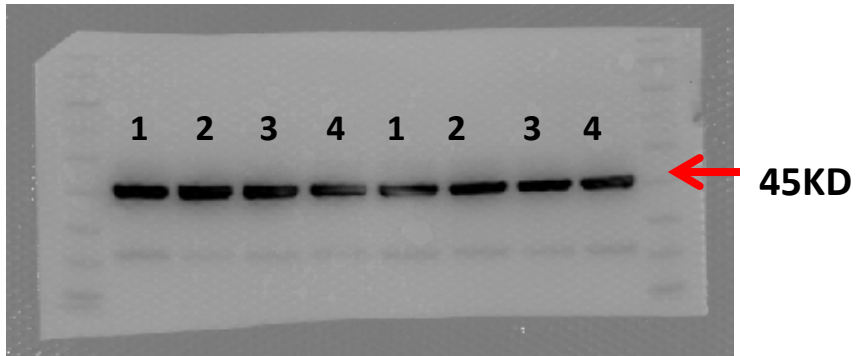
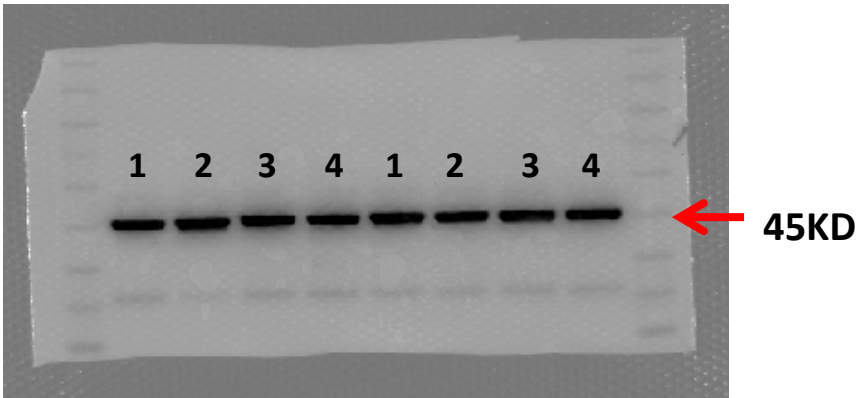
Not included in figure

Representative bands

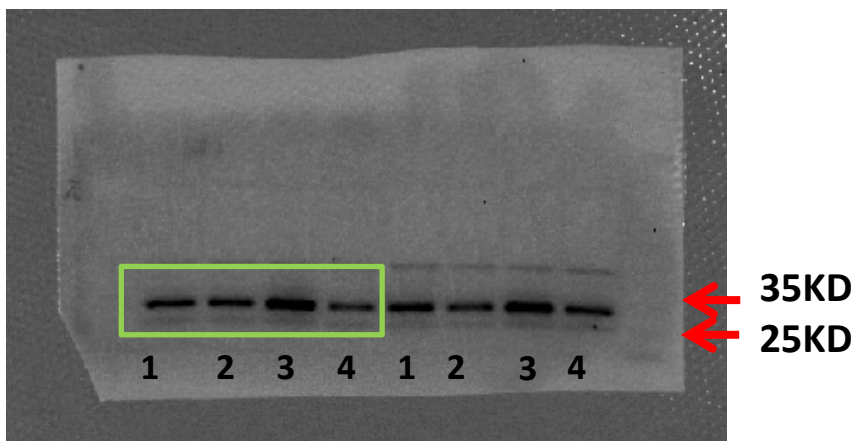
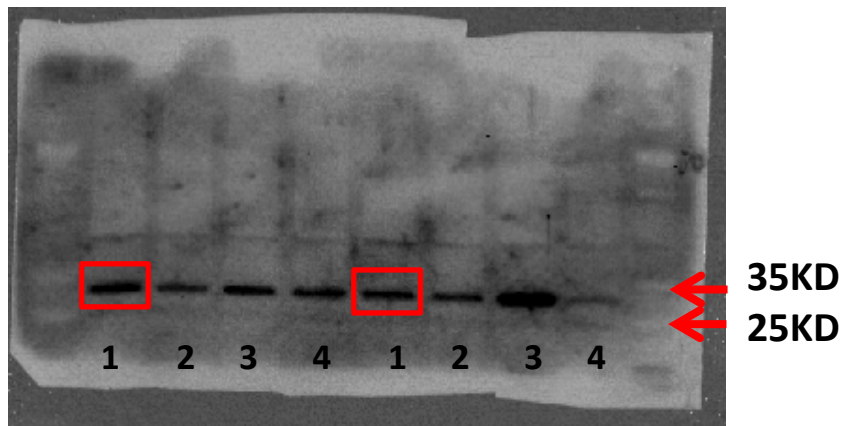
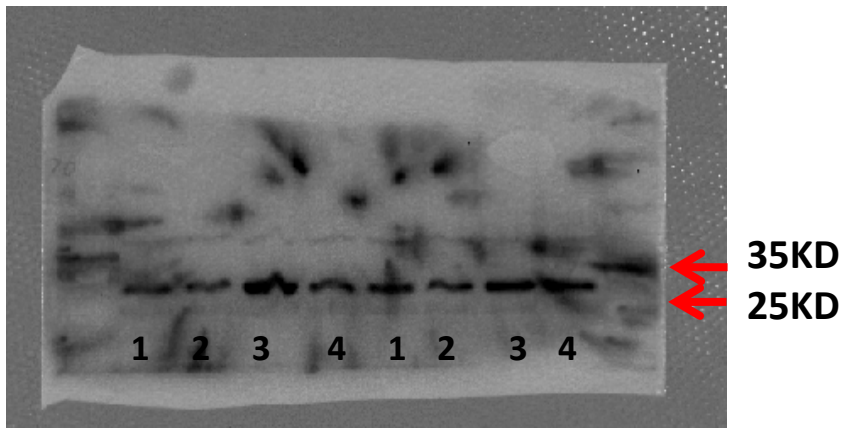
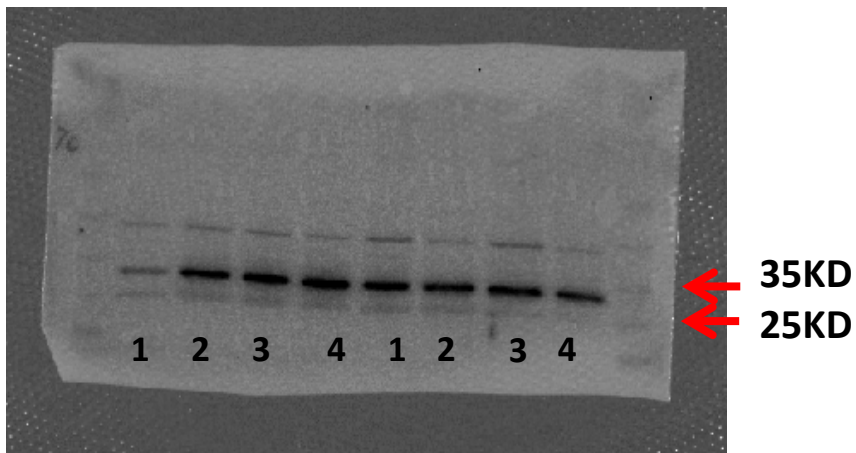
- 1 sham+MEM+saline
- 2.sham+MEM+JPFYII
- 3.CS+IAV+saline
- 4.CS+IAV+JPYFII



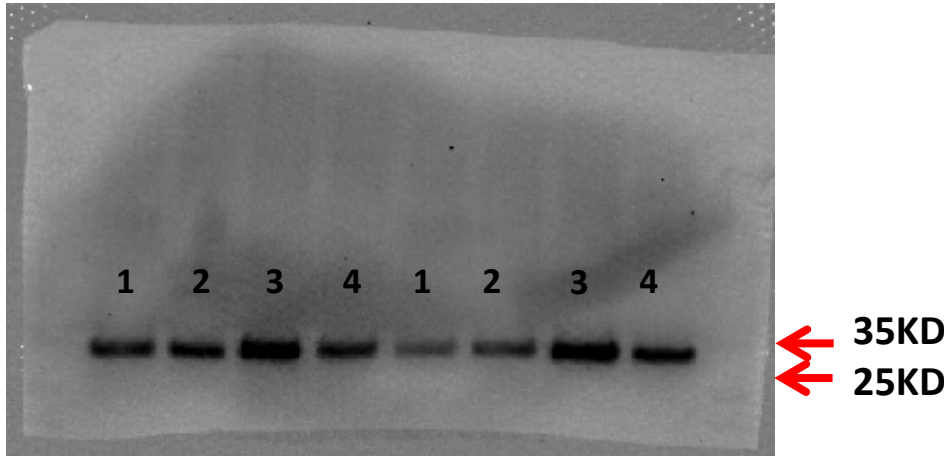
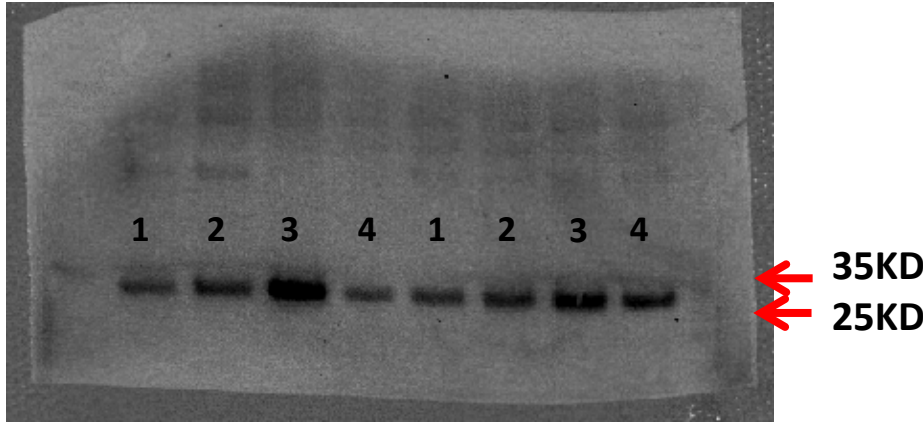
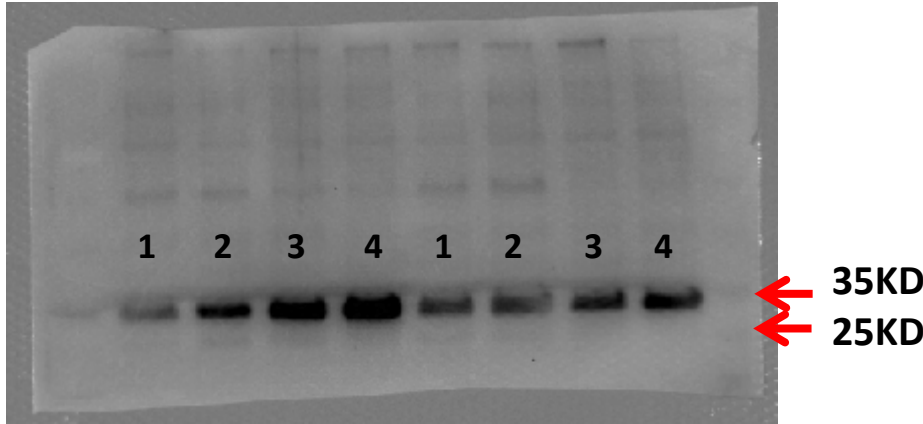
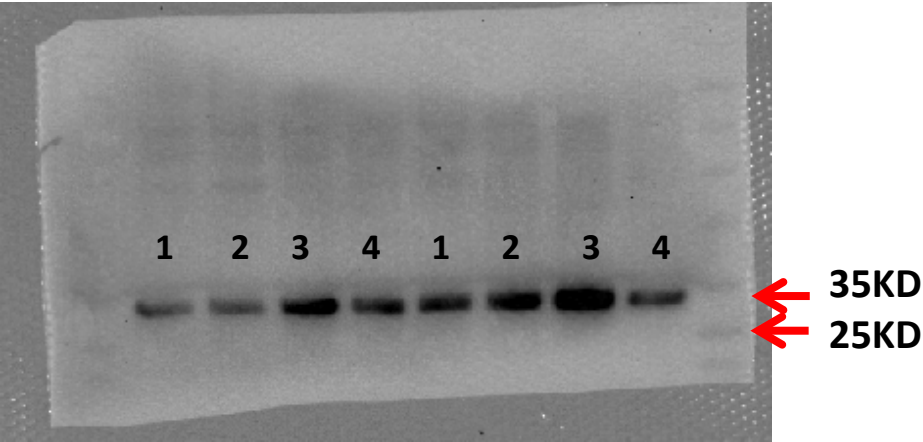
**β-actin**



HO-1

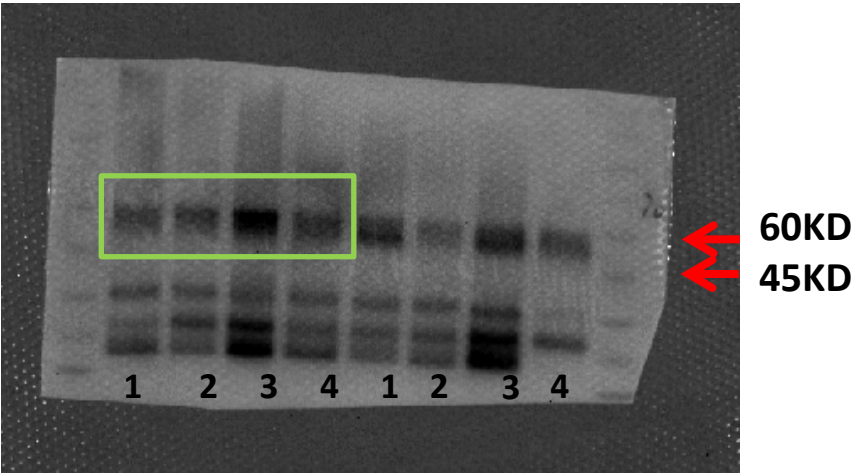
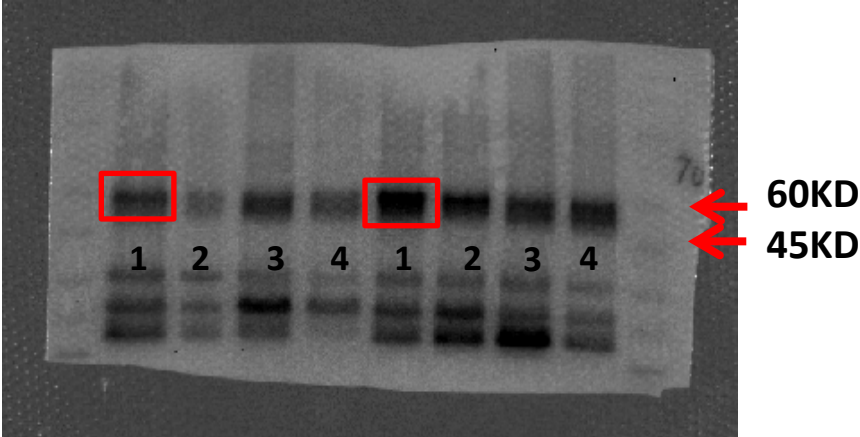
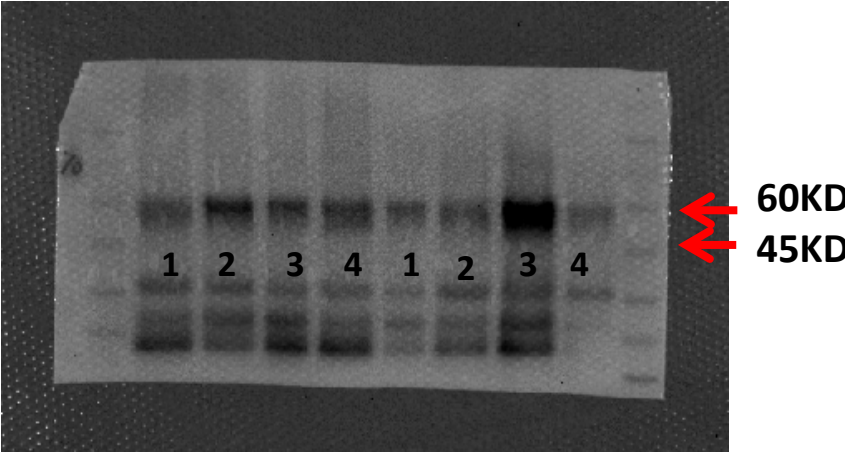
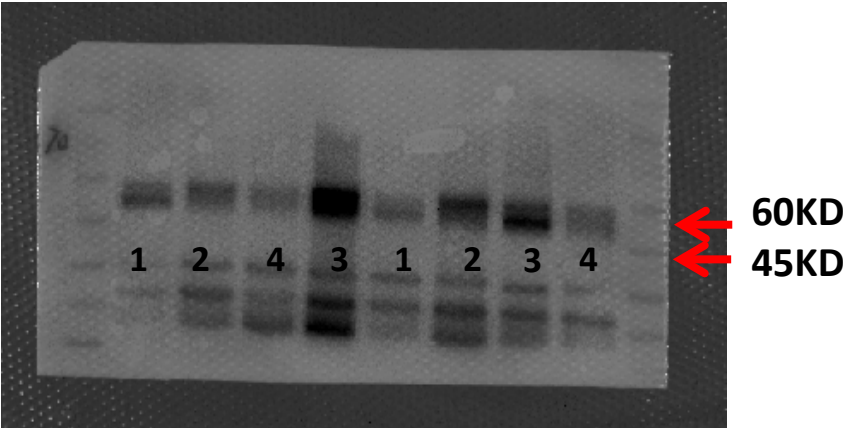


HO-1

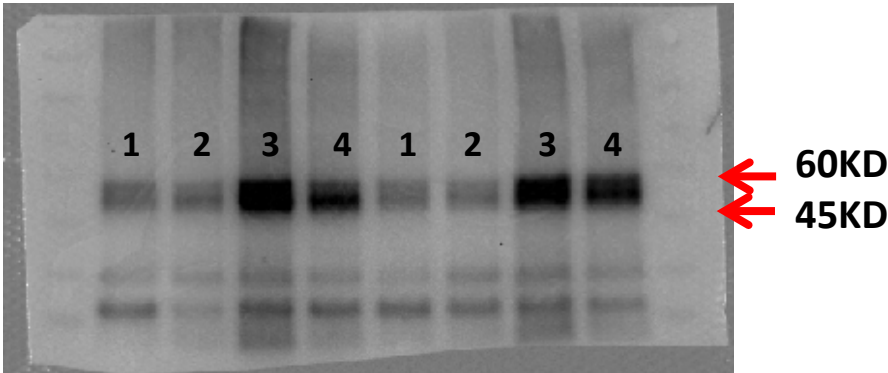
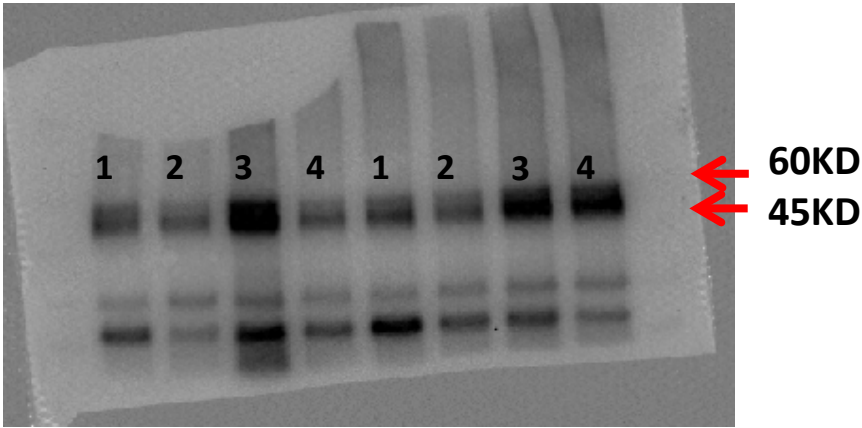
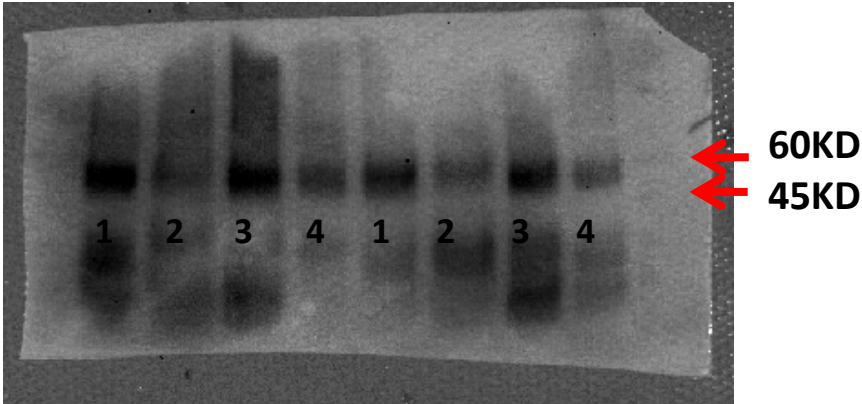
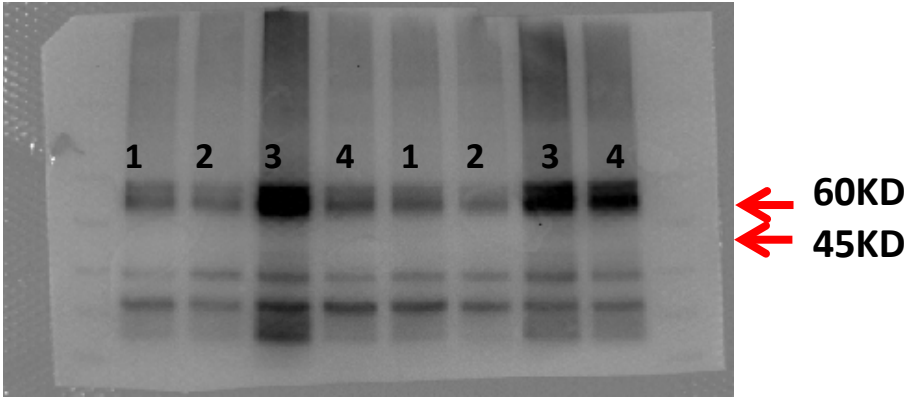




gp91

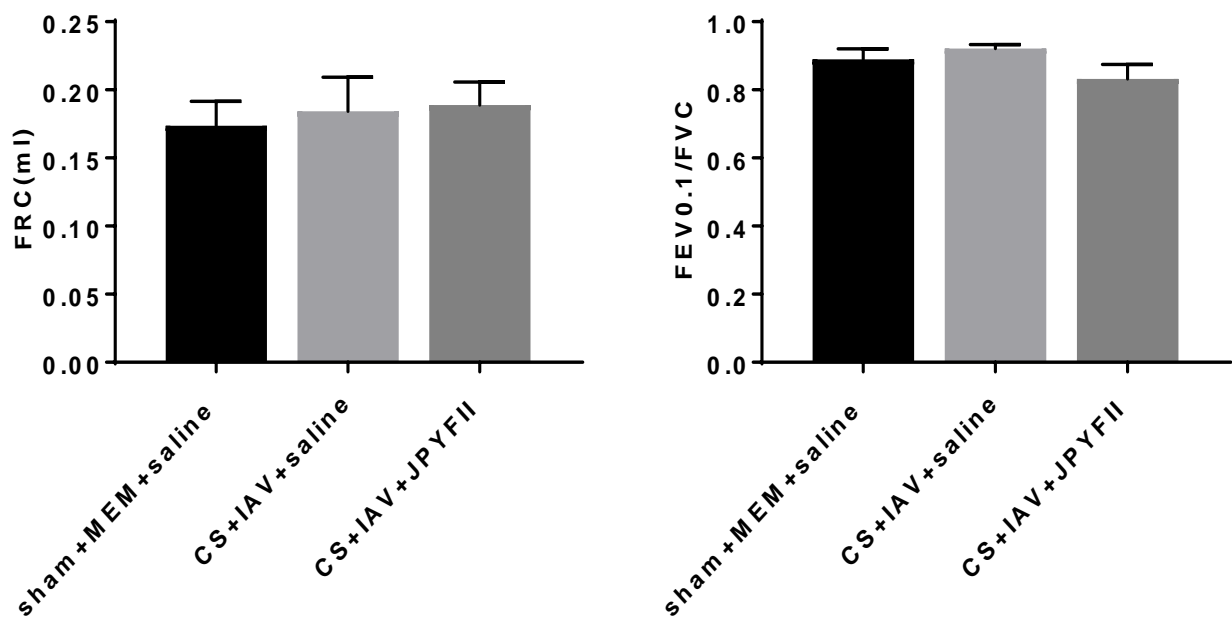


gp91



**Figure S3** Effects of *JPYFII* formulation on lung function in IAV-infected CS-exposed mice.

Lung function was assessed via the Buxco pulmonary function test. Forced vital capacity (FVC), forced expired volume over 0.1 s (FEV0.1), and functional residual capacity (FRC) in intubated BALB/c mice are shown. Data are expressed as mean  $\pm$  the standard error of the mean.  $n = 10\text{--}12$  per group.





**Figure S4** Effects of *JPYFII* formulation on superoxide production in cells from BALF from the lungs of CS-exposed and IAV-infected mice.

Reactive oxygen species production from BALF cells was assessed *ex vivo* under PDB -stimulated conditions. Data are expressed as mean  $\pm$  the standard error of the mean.  $n = 6\text{--}8$  mice per group. Statistical significance was assessed using two-way analysis of variance with Tukey's test.  $**p < 0.01$

