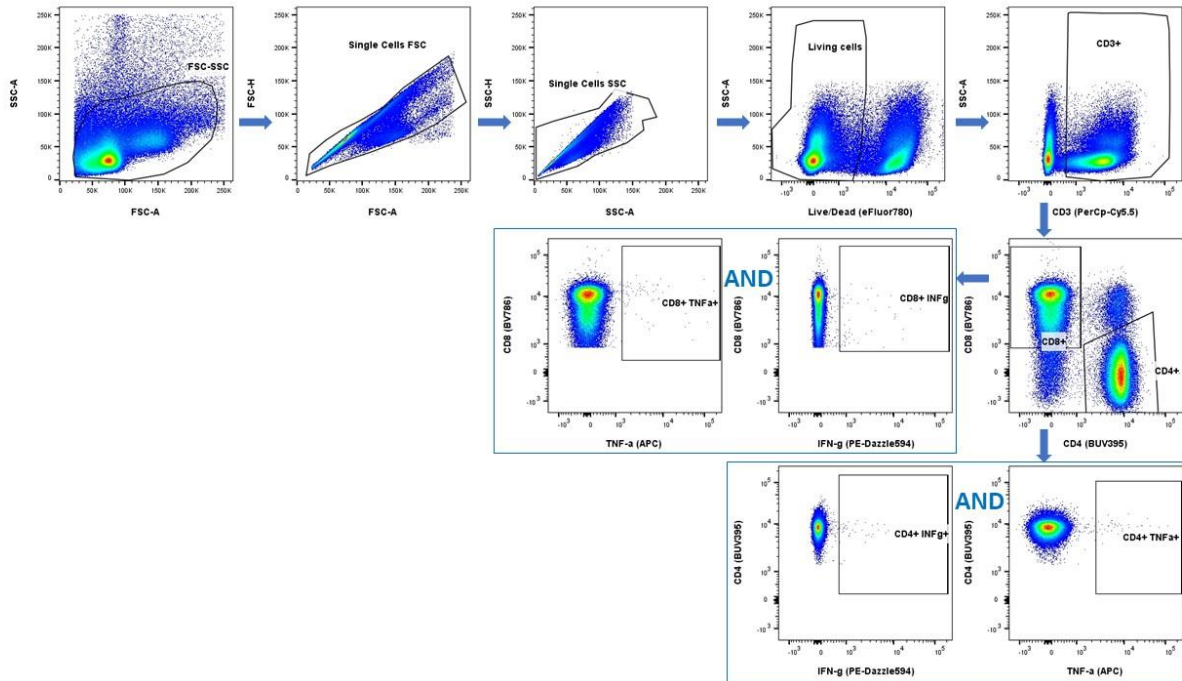


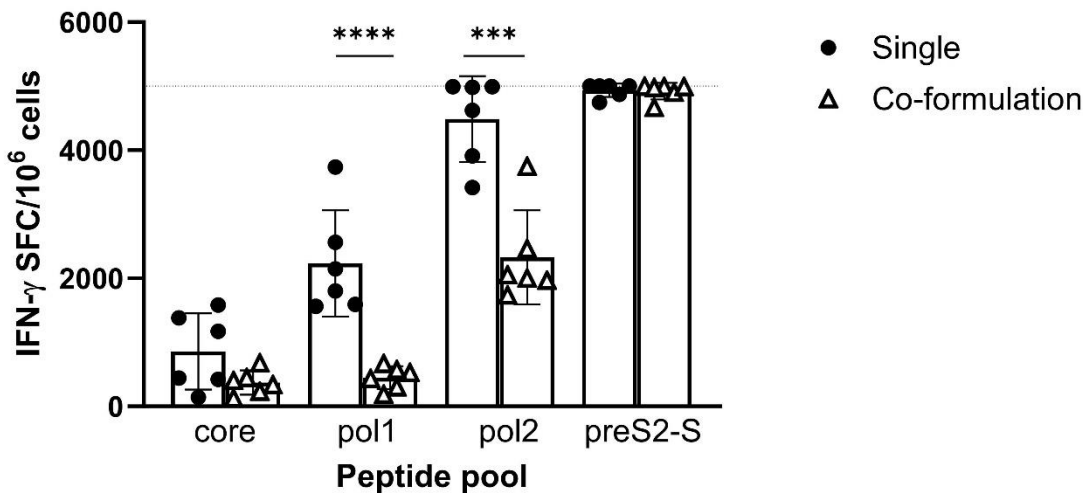
## Supplementary Figure

### S1: Gating strategy for intracellular multicolor flow panel for determination of HBV-specific polyfunctional T-cells



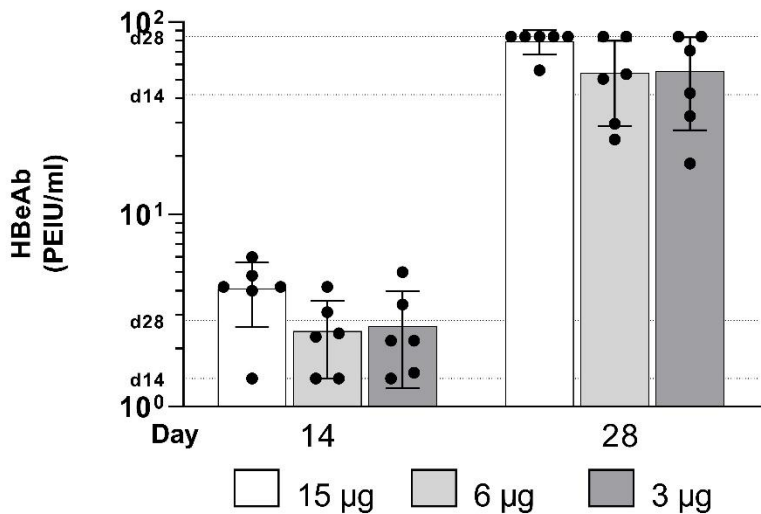
**S2: Evaluation of induced immune responses in naive C57BL/6 mice after vaccination with co-formulated (MC3) mRNA vaccine encoding for three HBV antigens compared to for formulated mRNA encoding for one HBV antigen.**

Induced immune responses after prime/boost, as measured by IFN- $\gamma$  ELISpot (vertical axis) for co-formulated (triangle) versus single antigen vaccine (black circles) at 5  $\mu$ g per mRNA after stimulation with different peptide pools (horizontal axis) (n=6).



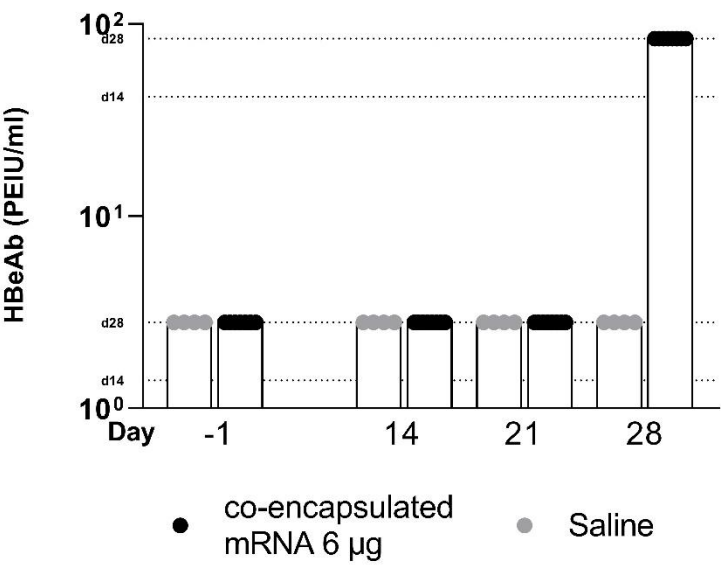
**S3: Evaluation of induced anti-HBe in naive C57BL/6 mice after vaccination with coformulated mRNA vaccine in dose response.**

Induced concentrations of anti-HBe (vertical axis), measured by CLIA, at day 14 and 28 (horizontal axis) after different doses (15  $\mu$ g white, 6  $\mu$ g light grey and 3  $\mu$ g dark grey) of coformulation (n=6).



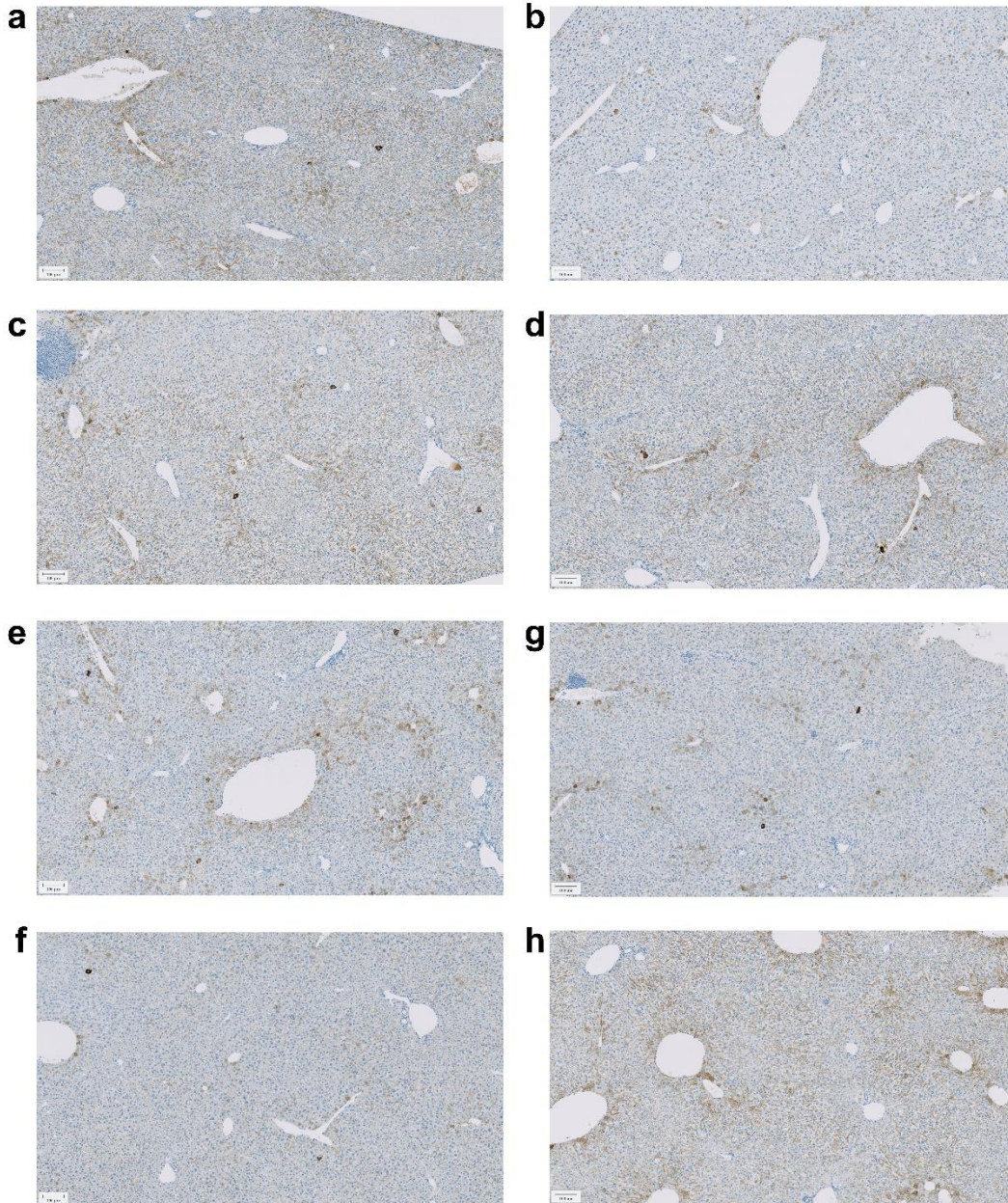
**S4: Evaluation of induced anti-HBe in naive BALB/c mice after vaccination with co-encapsulated mRNA vaccine.**

Induced concentrations of anti-HBe (vertical axis), measured by CLIA, at day -1, 14, 21 and 28 (horizontal axis) for vaccinated mice (black) versus saline control (grey) (n=6).



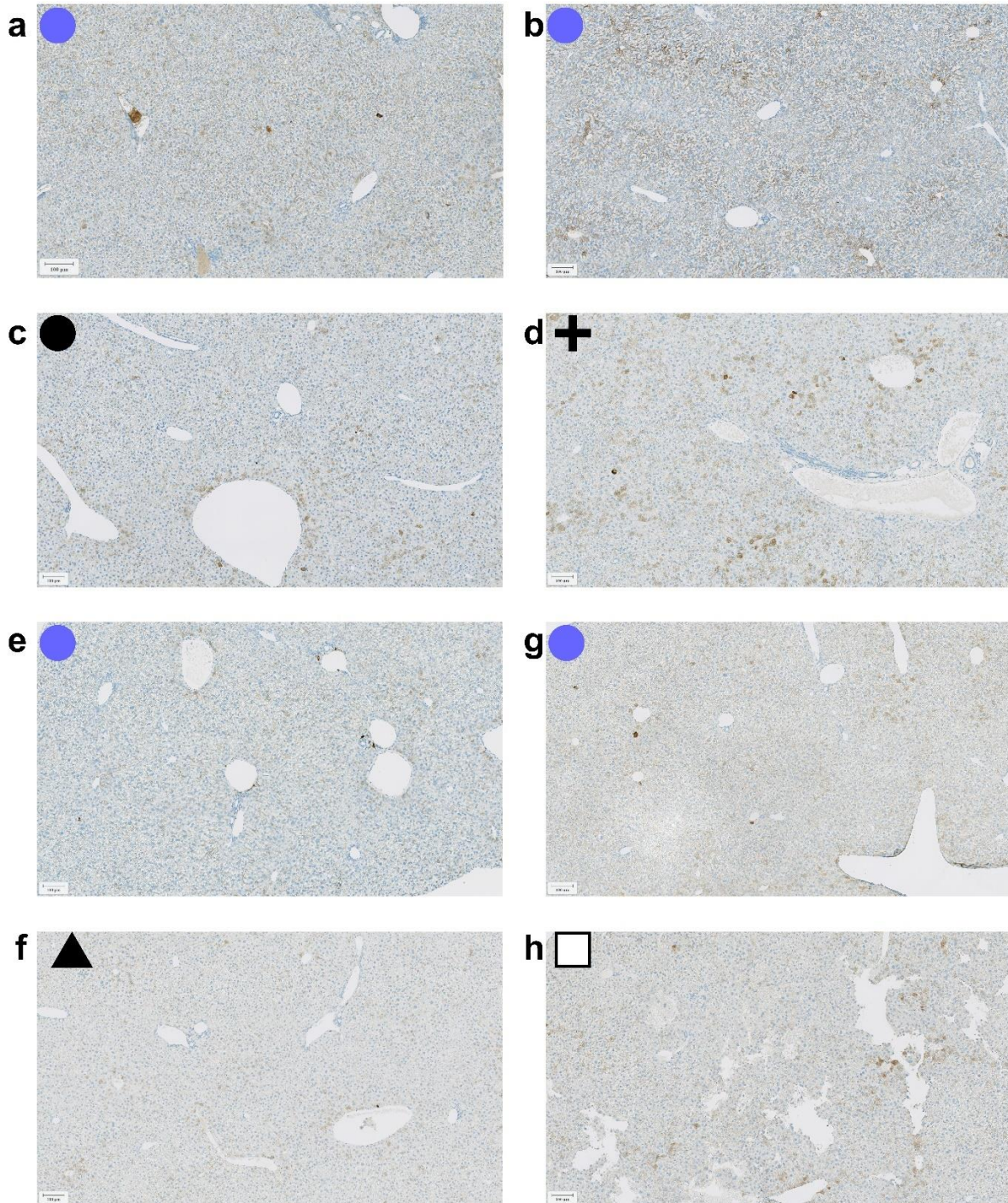
**S5: Immunohistochemistry staining for HBsAg in AAV-HBV transduced mice in saline control group.**

HBsAg positive areas are indicated in brown against the blue colored cells for each mouse of the saline treated group.





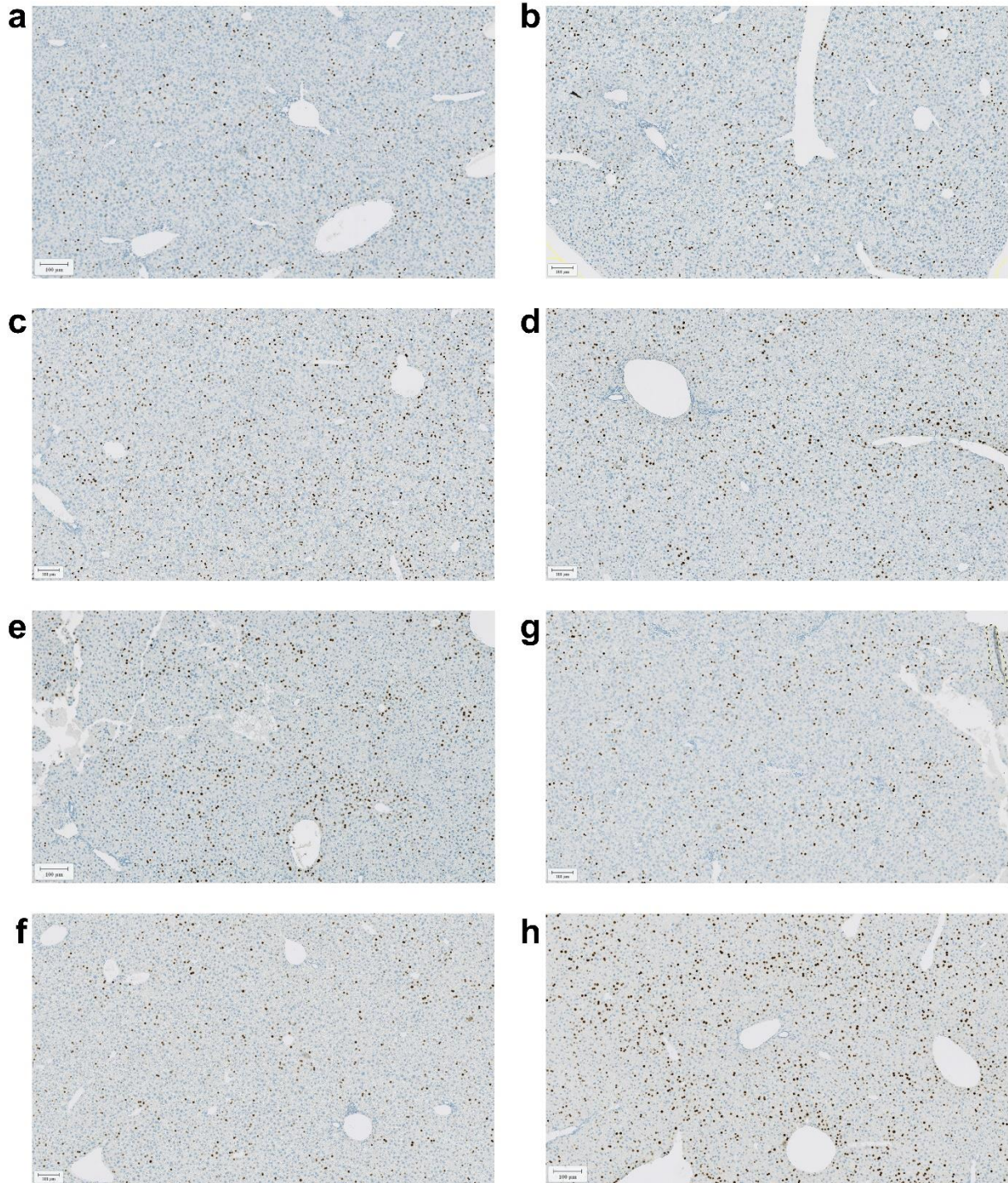
**S6: Immunohistochemistry staining for HBsAg in AAV-HBV transduced mice in mRNA vaccinated group.**  
HBsAg positive areas are indicated in brown against the blue colored cells for each mouse of the mRNA vaccinated group with corresponding symbols from figure 6d-e.





**S7: Immunohistochemistry staining for HBsAg in AAV-HBV transduced mice in saline control group.**

HBsAg positive areas are indicated in brown against the blue colored cells for each mouse of the saline treated group.





**S8: Immunohistochemistry staining for HBcAg in AAV-HBV transduced mice in mRNA vaccinated group.**

HBcAg positive cells are indicated in brown against the blue colored cells for each mouse of the mRNA vaccinated group with corresponding symbols from figure 6d-e added.

