Fig 1. Expression of M2::YSD

(B) Expression of M2::YSD confirmed by WB with primary anti M2 polyclonal Abs;

N, EBY100 yeast without plasmid; 1-6: 6 different expressing yeast colonies.

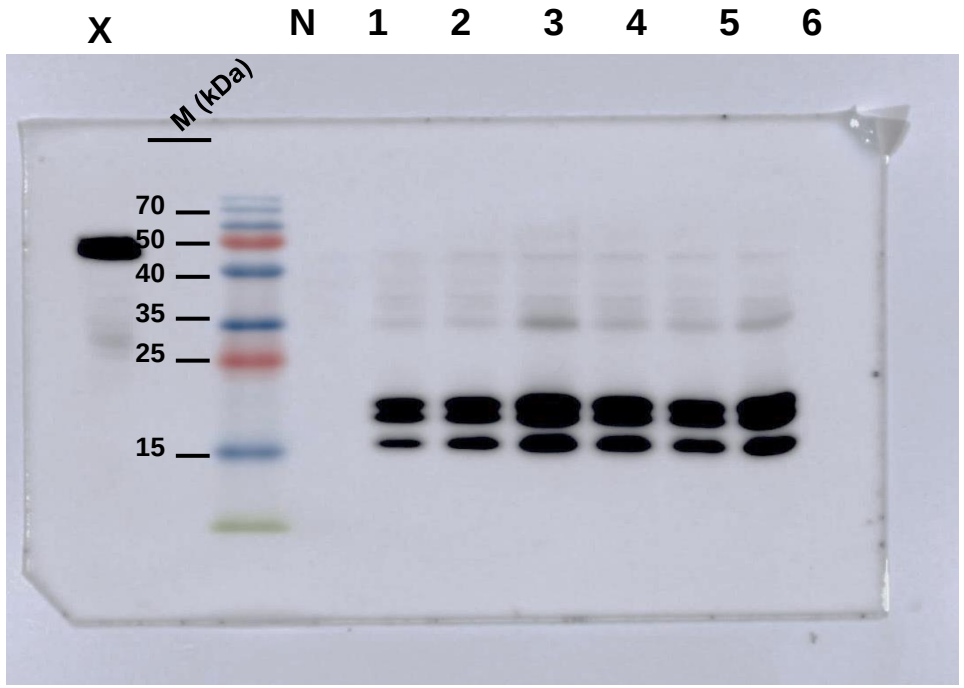


Fig 2. M2 specific candidates isolation using bio-panning.

(C) The 10 candidates, scFv and single-domain V_L forms, were detected using PCR with specific primers (scFv at 900 bp and V_L at 400 bp) were loaded to agarose gel.

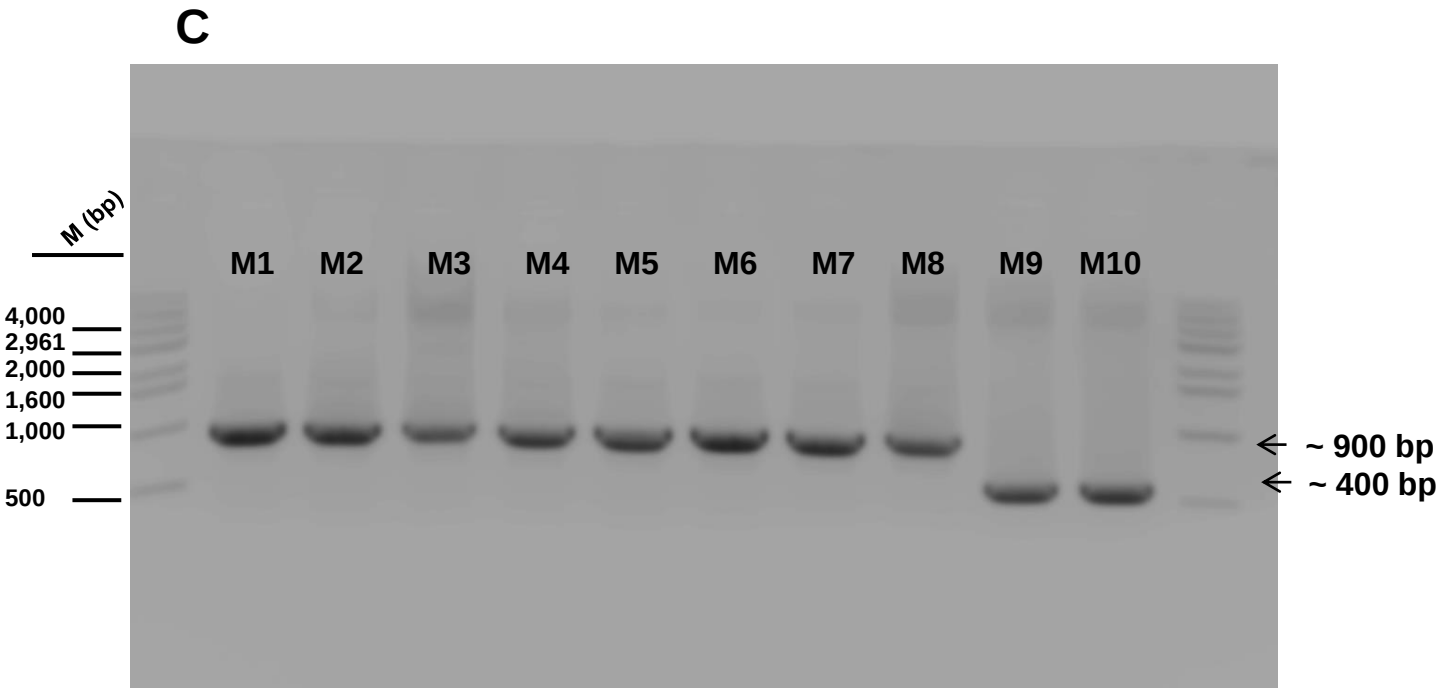


Fig 3. Production of selected candidates in *E. coli* and their respective virion binding affinities.

(C) Purification results of three candidates confirmed by coomassie blue staining and western blotting using anti-His-Abs, with the size of each protein indicated, left, **NscFvM8**;

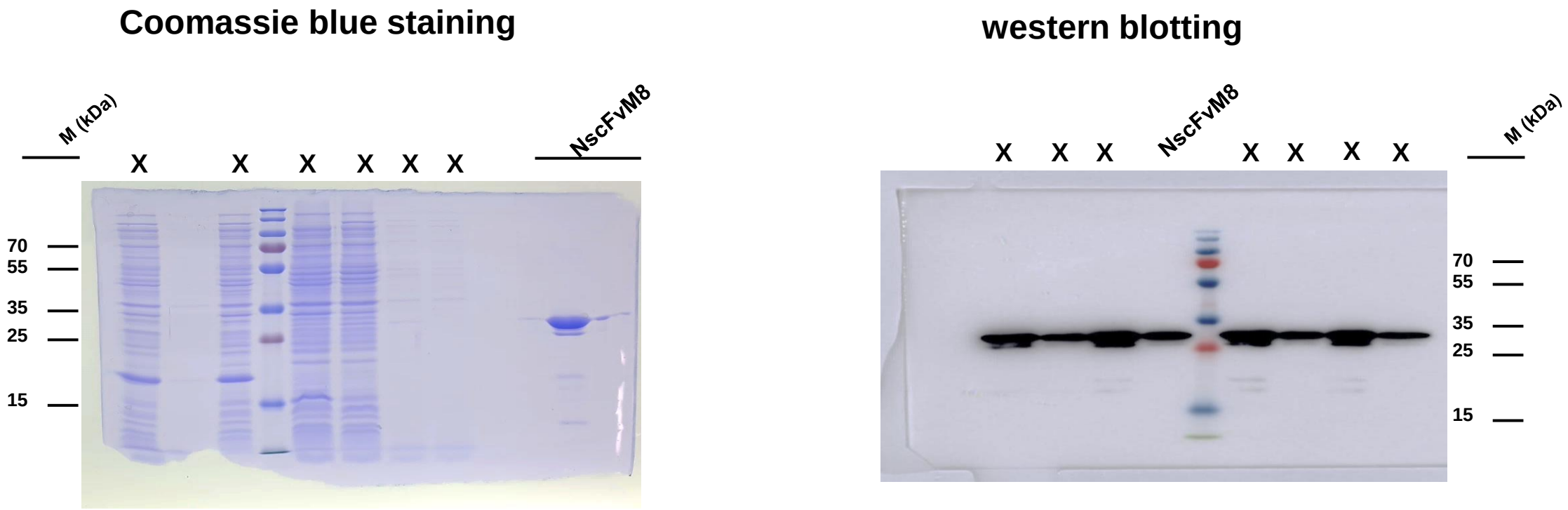
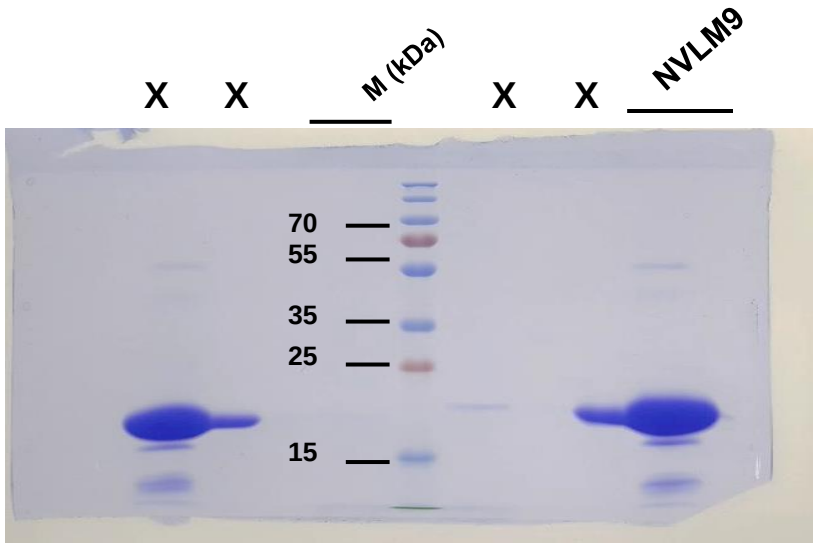


Fig 3. Production of selected candidates in *E. coli* and their respective virion binding affinities.

(C) Purification results of three candidates confirmed by coomassie blue staining and western blotting using anti-His-Abs, with the size of each protein indicated, middle, **NVLM9**

Coomassie blue staining



western blotting

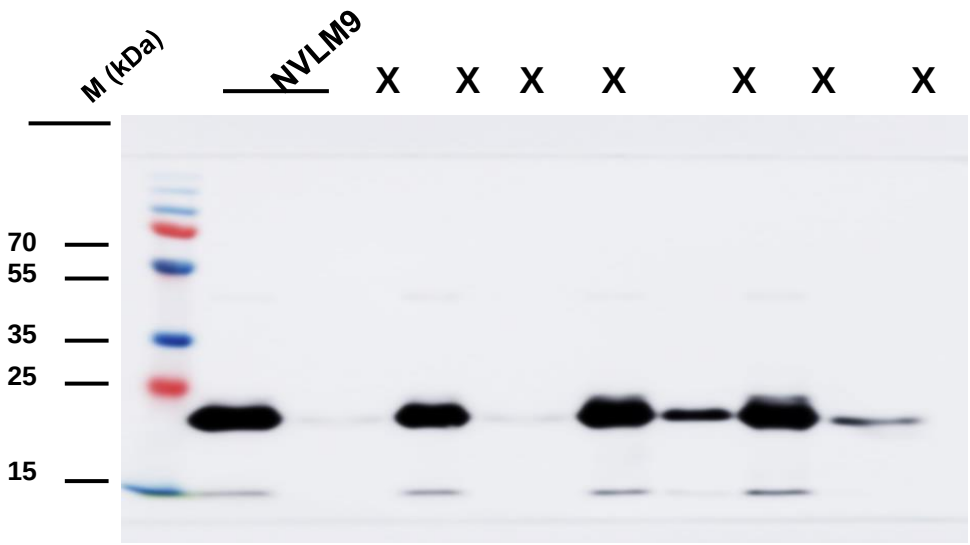


Fig 3. Production of selected candidates in *E. coli* and their respective virion binding affinities.

(C) Purification results of three candidates confirmed by coomassie blue staining and western blotting using anti-His-Abs, with the size of each protein indicated, right, **NVLM10.**

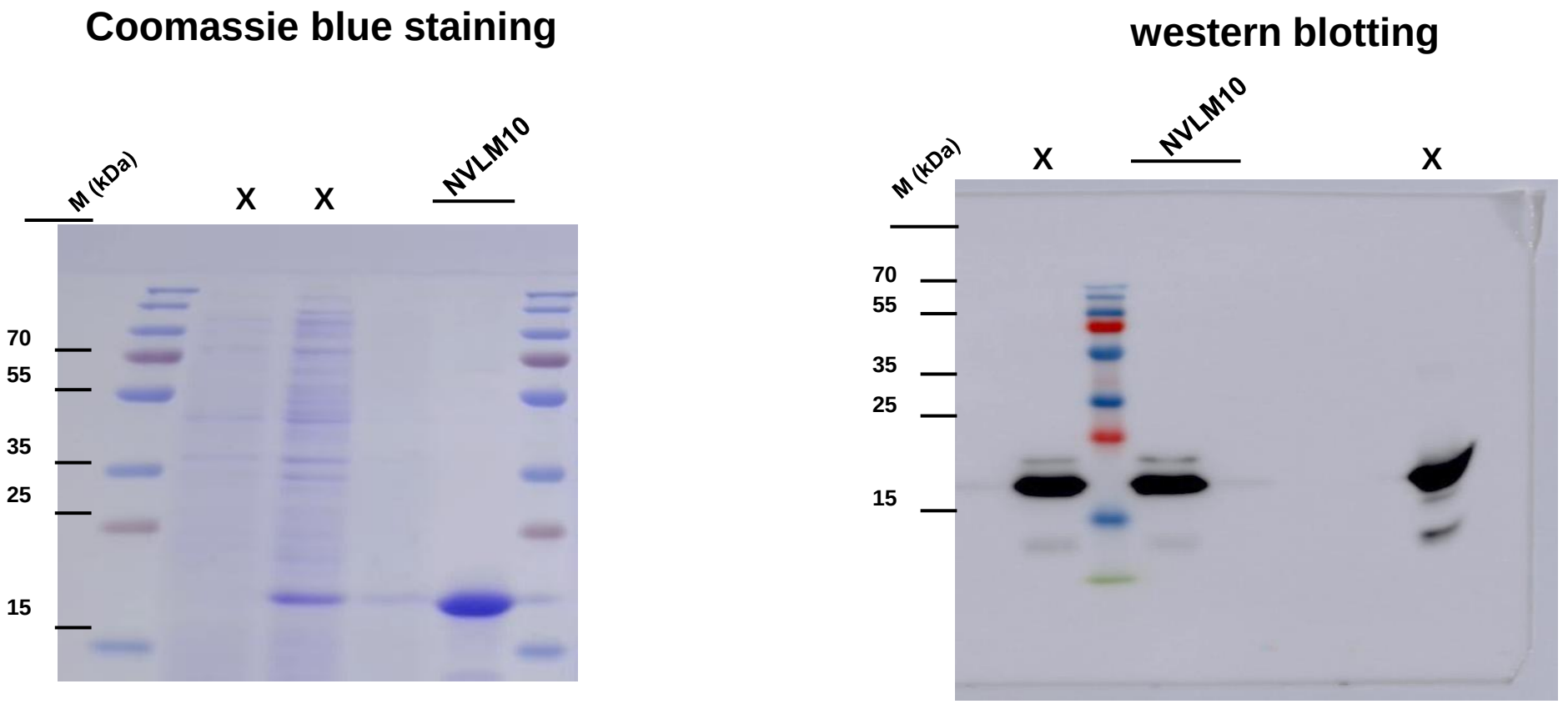
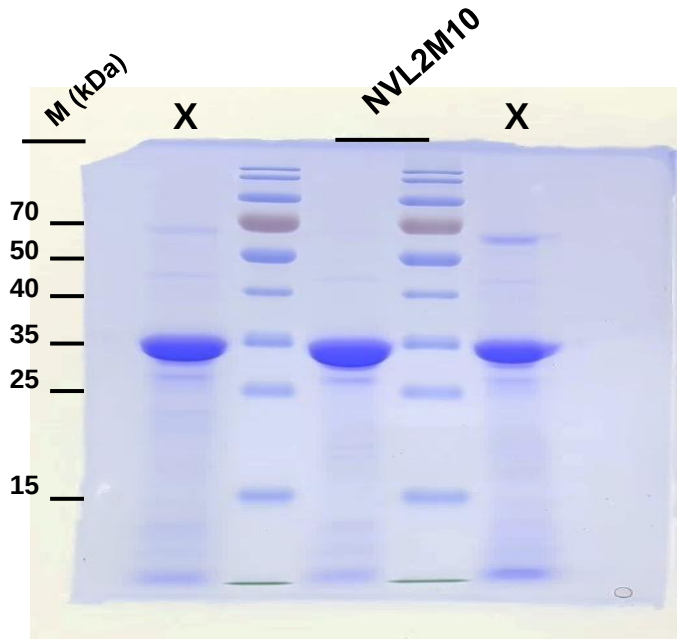


Fig 4. Engineering of a single-domain V_L antigen specific to the M2 protein of the H1N1/PR8 virus to a bivalent form.

(B) Purification of NVL2M10 (35 kDa) using Sepharose IgG resin exhibited high purity with coomassie blue staining and could detect anti His Abs in western blotting.

Coomassie blue staining



western blotting