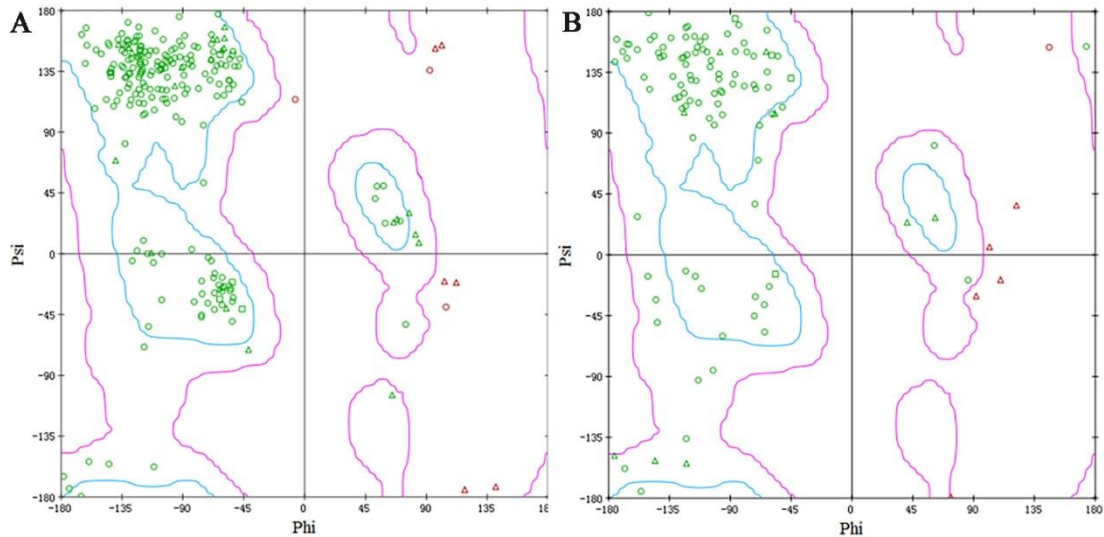


# Supplementary Materials: Research on the Mechanism of Action of Citrinin and Anti- Citrinin Antibody Based on Mimotope X27

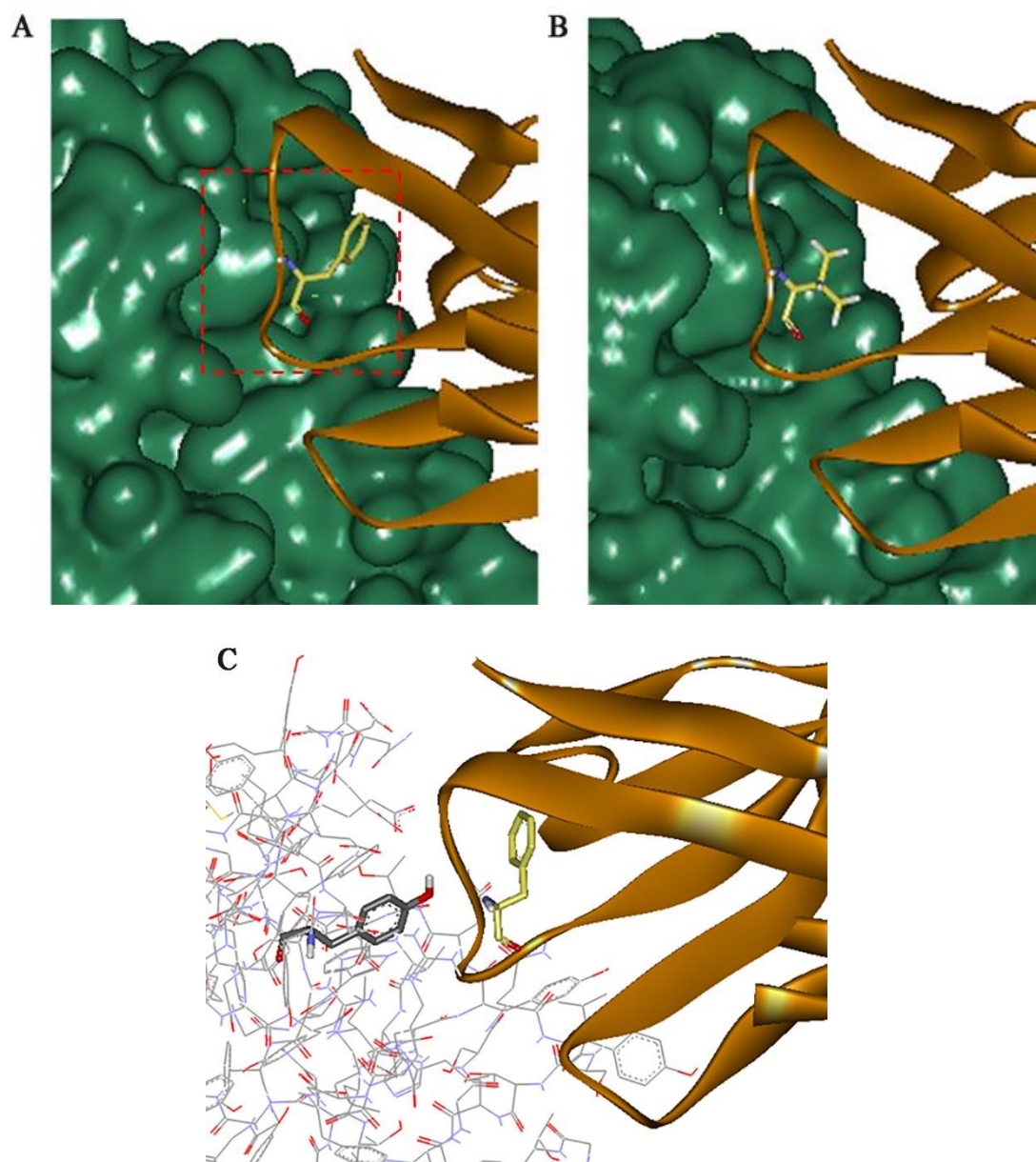
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**Figure S1.** The Ramachandran Plot of the models of anti-CIT ScFv(A) and X27(B). Cyan region: Hardsphere, Magenta region: Overlap.

Consensus	MAEVQLVESGGGLVQAGGSLRLSCAGSGRFLFLYPM <sup>+</sup> SWFRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
24 Sequences	10 20 30 40 50 60
1. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRFSWKPM <sup>+</sup> SWFRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
2. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRFSKPYPM <sup>+</sup> SWFRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
3. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRSQPASPM <sup>+</sup> SWFRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
4. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRTFNRYPM <sup>+</sup> SWFRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
5. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGREVFTLPMSW <sup>+</sup> FRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
6. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRLLHVPMSW <sup>+</sup> FRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
7. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRPTTMFPM <sup>+</sup> SWFRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
8. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRF. WLLPM <sup>+</sup> SWFRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
9. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRTFNRYPM <sup>+</sup> SWFRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
10. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRILILFPM <sup>+</sup> SWFRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
11. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRFR <sup>+</sup> TCLPMSWFRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
12. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRWRDRGPPMSW <sup>+</sup> FRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
13. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRSFFCYPM <sup>+</sup> SWFRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
14. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRPFWLRPM <sup>+</sup> SWFRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
15. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRSP <sup>+</sup> . KPMSWFRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
16. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRLLF. NPMSW <sup>+</sup> FRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
17. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRSYWLGPMSW <sup>+</sup> FRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
18. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRAFNRYPMSW <sup>+</sup> FRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
19. pro	.IAEVQLVESGGGLVQAGGSLRLSCAGSGR <sup>+</sup> FHLGVPMSWFRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
20. pro	.IAEVQLVESGGGLVQAGGSLRLSCAGSGRLLSGSPMSW <sup>+</sup> FRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
21. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRWPFGIPMSW <sup>+</sup> FRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
22. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRF. LS. PMSW <sup>+</sup> FRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
23. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRF. .LIPMSW <sup>+</sup> FRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD
24. pro	MAEVQLVESGGGLVQAGGSLRLSCAGSGRILWCSPMSW <sup>+</sup> FRQVPGKEREFVAEINW <sup>+</sup> SGSSTYYAD

**Figure S2.** Sequence analysis of 24 clones from Site-directed saturation library.



**Figure S3.** The Docking results of anti-CIT ScFv(A) and F29V-ScFv(B). (C) An enlarged view of the dotted box part in panel A.