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Title: Production and Characterization of Monoclonal Antibody Broadly Recognizing Cry1 Toxins by Use of Designed Polypeptide as Hapten

Abstract: The supporting information mainly included three parts: (i) The procedure of synthesizing the peptide-KLH conjugates. (ii) The determination of binding ability of the two rabbits' antiserums to seven Cry1 toxins after five times immunization with the mixture of seven Cry1 toxins by indirect ELISA, as shown in Figure S-1. (iii) The determination of binding ability of 3# mouse antiserum to seven Cry1 toxins after five times immunization with T2-KLH by indirect ELISA, as shown in Figure S-2.

Preparation of conjugates. The solution of KLH dissolved with PBS at the concentration of 10 mg mL^{-1} was transferred to dialysis bag and dialyzed against PBS at 4 ^{o}C overnight. MBS was dissolved in DMF to the concentration of 10 mg ml^{-1}. KLH solution and MBS solution were mixed at the ratio of 10:1 (W/W) and incubated 30 minutes to activate KLH at room temperature. The bottle was shaken several times during incubation. Nucleic protein detector was connected with a column for the monitor, and washing the column loaded with Sephadex G-25 resin to stable by PBS. Then, the activated KLH solution was added onto column to remove excess MBS and reaction byproducts, Thereafter, effluence containing the activated KLH was collected. Dissolved polypeptide was added with the activated KLH by the ratio of 1:1 (W/W) and incubated 3 hours at room temperature for the polypeptide-KLH conjugates generation. The solution containing polypeptide-KLH conjugates was dialyzed against PBS Buffer at 4 ^{o}C overnight, and at -20 ^{o}C for long storage.

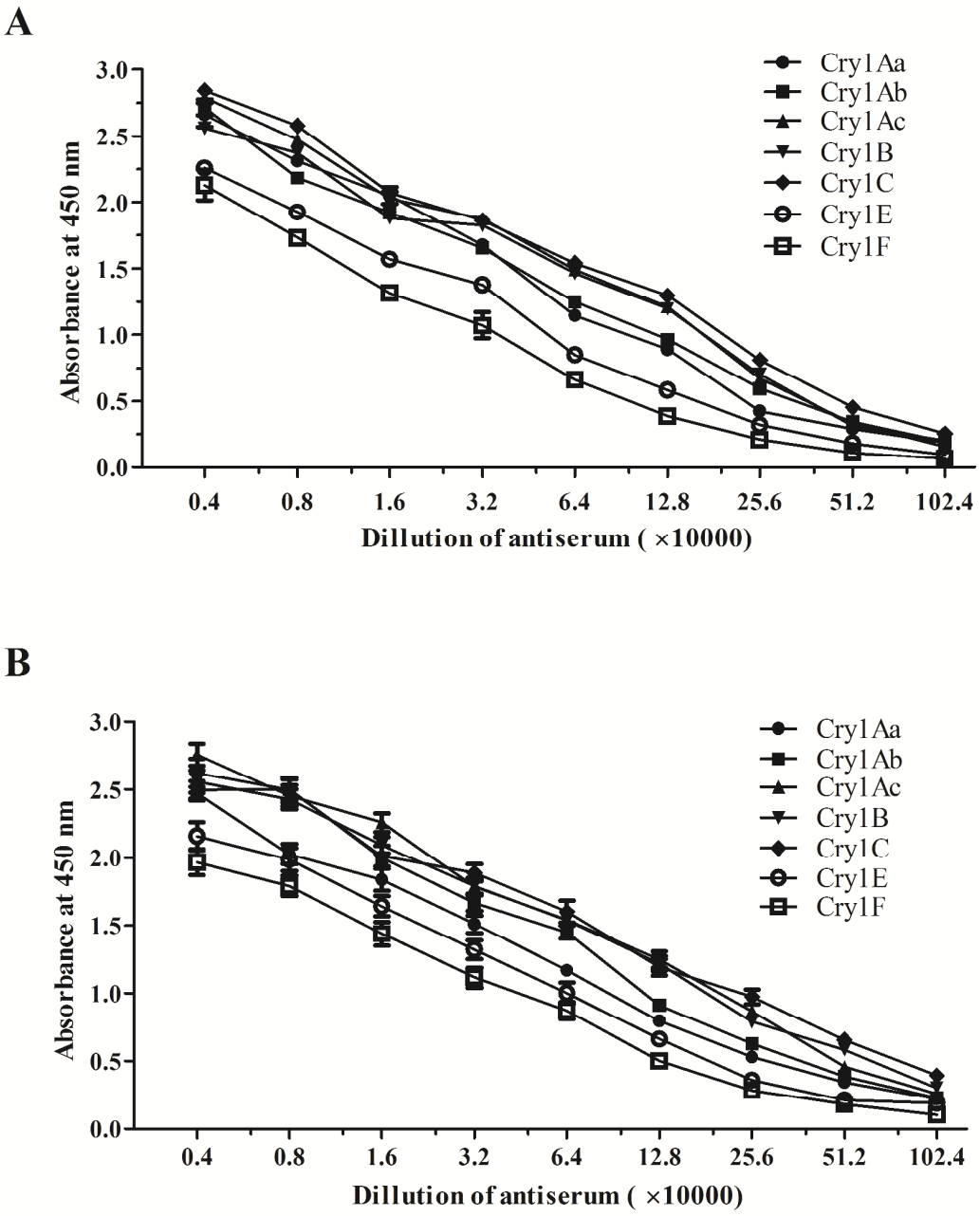

Figure S-1. The binding ability of 1# (A) and 2# (B) rabbit antiserums to seven Cry1 toxins determined by indirect ELISA. The absorbances of the negative control were all below 0.1 against the seven Cry1 toxins. Each point represents the average value of three measurements.

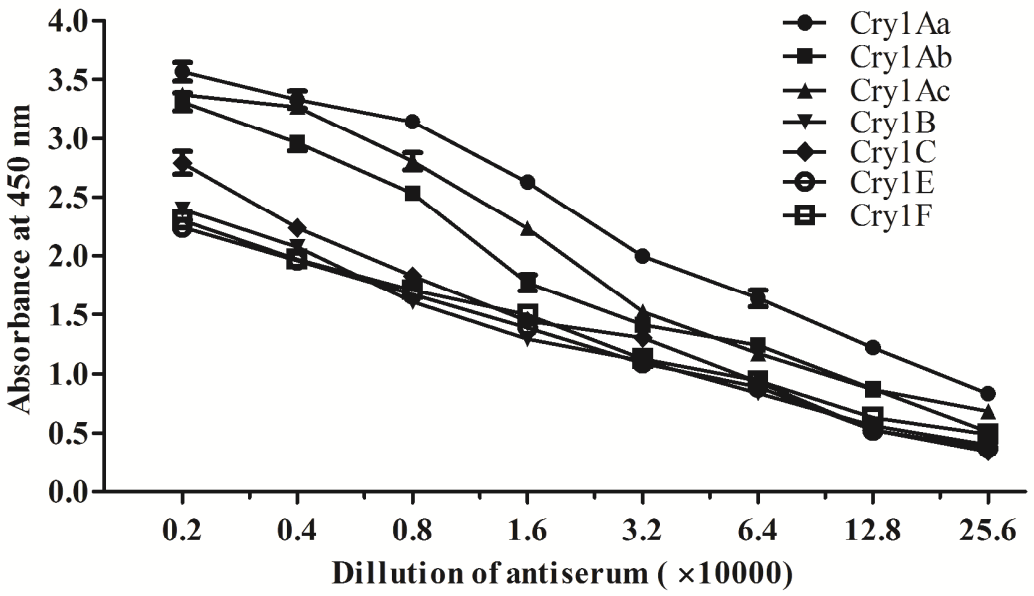

Figure S-2. The binding ability of 3# mouse antiserum to seven Cry1 toxins determined by indirect ELISA. The absorbances of the negative control were all below 0.1 against the seven Cry1 toxins. Each point represents the average value of three measurements.