



Article

# Toxic determination of Cry11 mutated proteins obtained using rational design and its computational analysis

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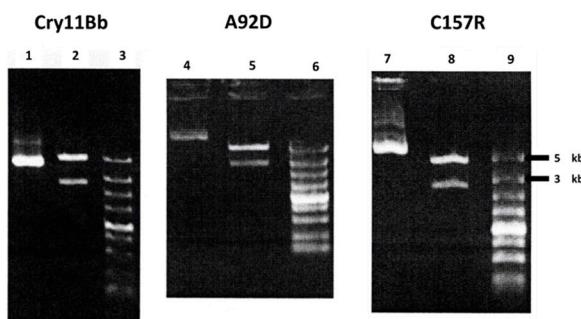
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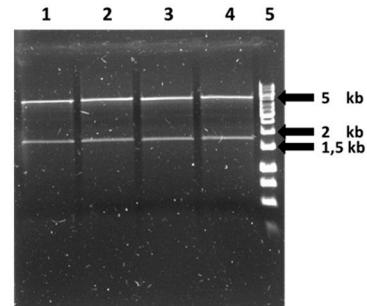
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## Supplementary materials

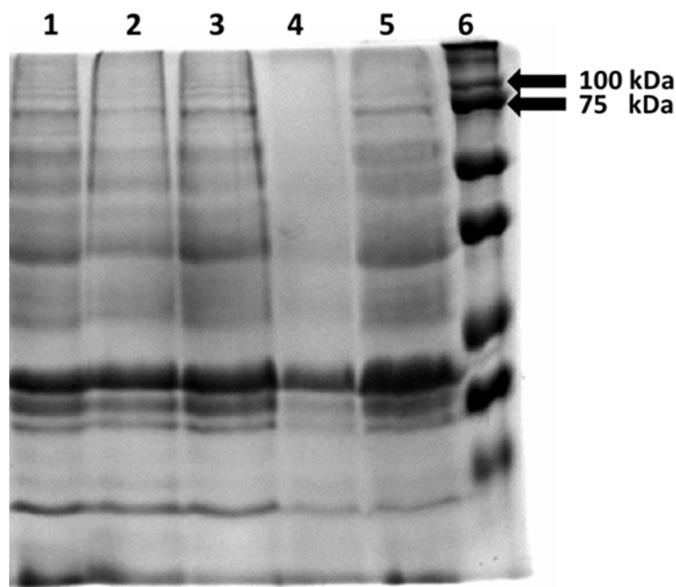
**A** Cry11Bb and Variants digestions



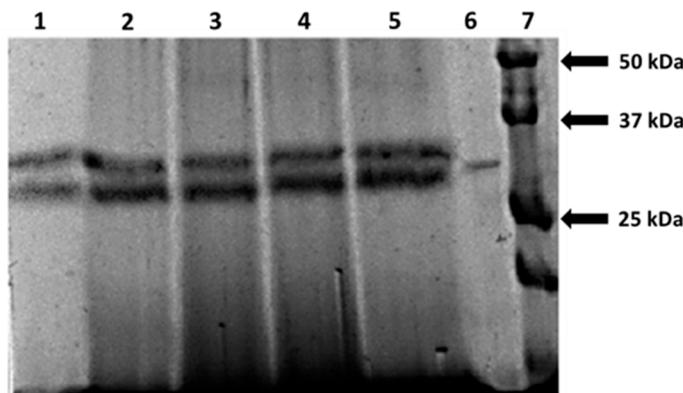
**B** Cry11Aa and Variants Digestion



**Figure S1.** Restriction enzyme assay HindIII/ SacI for every native and variant gene obtained. 1) 553; 2) 556; 3) 553-556; 4) Cry11Aa; 5) Weight marker.



**Figure S2. A.** SDS-PAGE Cry11Aa – 72 kDa. Lane 1. Variant 553; Lane 2. variant 556; Lane 3. Double mutant 553-556; Lane 4. Negative Control BMB171; Lane 5. Positive Control Cry11Aa; Lane 6. Weight marker.



**Figure S2. B.** SDS-PAGE Cry11Aa active toxin (32- 34 kDa). Lane 1. Cry11Aa; Lane 2. Variant 8Aa; Lane 3. Variant 553; Lane 4. Variant 556; Lane 5. Variant 553-556; Lane 6. Negative control BMB171; 7) Weight marker.

**Table S1.** Oligos designed to obtain the variants 8Cry11Aa-553, 8Cry11Aa-556 and 8Cry11Aa-553/556.

Position	ID	Sequence
553	3C8F	5'-AGAAGAGTGGTATTTCGCAGTGGTTGTA-3'
	3C8R	5'-TACAAACCACTGCGATAAATACCACTCTTCT-3'
556	6C8F	5'-GGTATTCTCGCAGTTGTTGTAGAAAAGA-3'
	6C8R	5'-TCTTTTACTACAAACAACGAGAAATACC-3'
553-556	36C8F	5'-AGAAGAGTGGTATTTCGCAGTTGTTGTAG- TAAAAGA-3'
	36C8R	5'-TCTTTTACTACAAACAACGAGAAATACCAC- TCTTCT-3'