

# Supplementary Materials: Development of a Biosensor to Detect Venom of Malayan Krait (*Bungarus candidus*)

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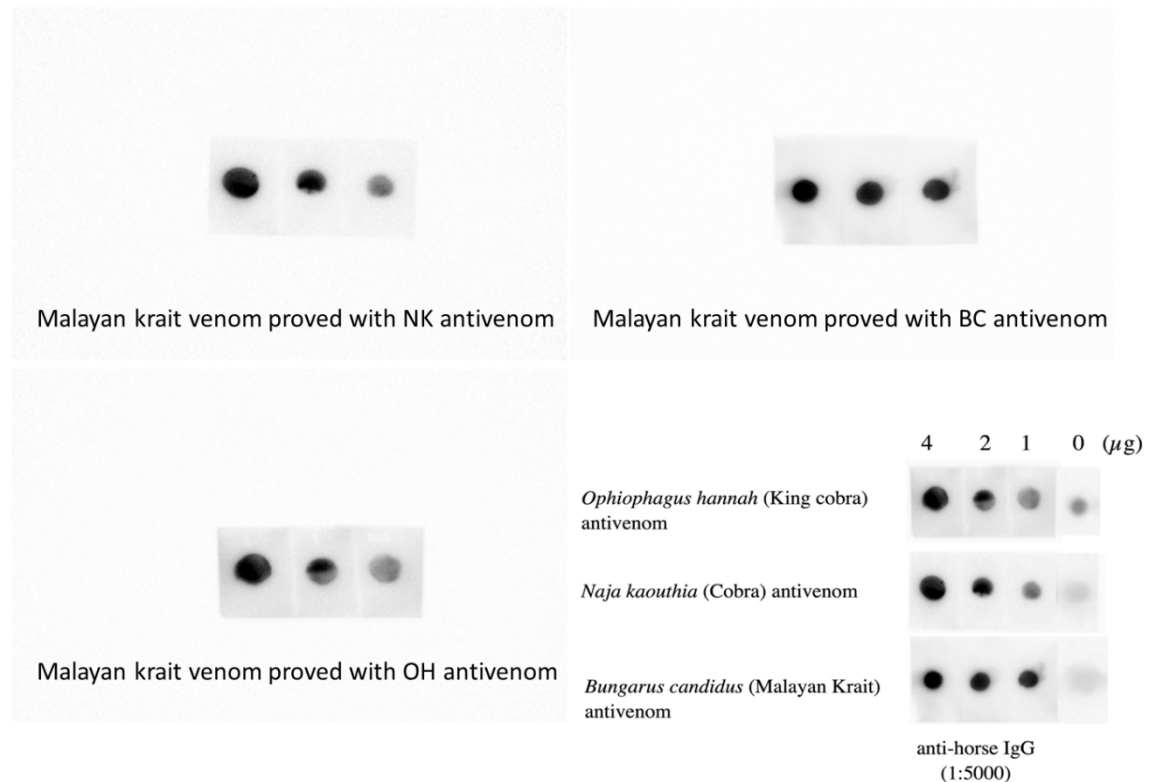
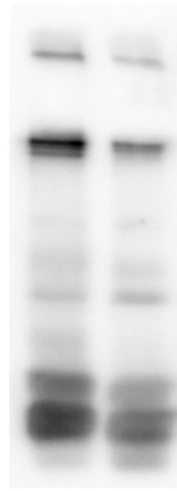
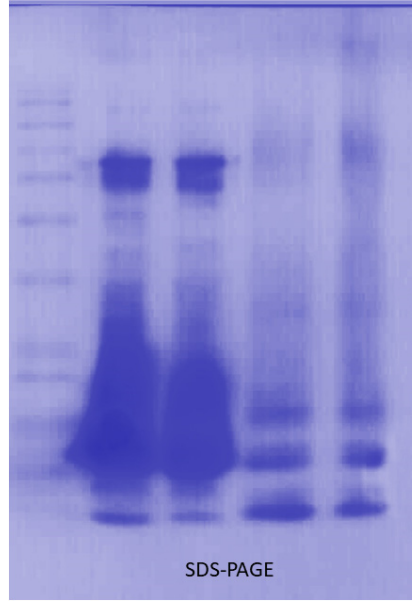


Figure S1: Original dot blot.

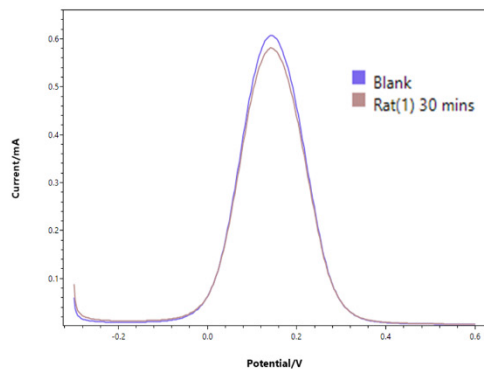


Western blot

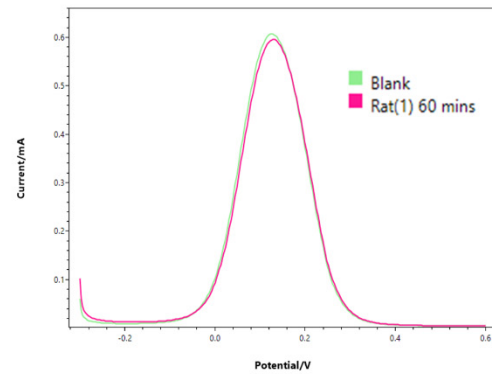


SDS-PAGE

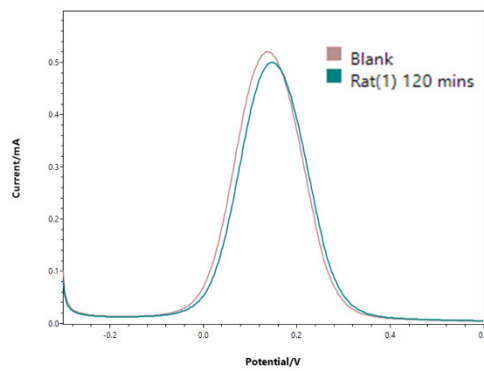
**Figure S2:** Original SDS=PAGE and Western immune blotting.



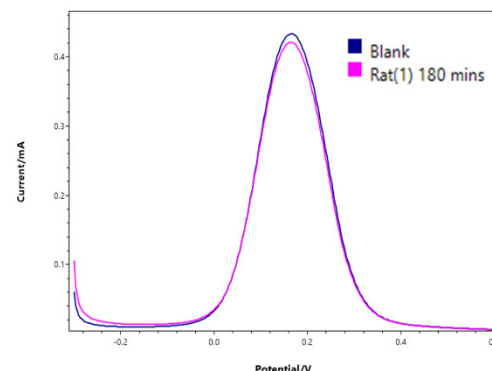
(a)



(b)



(c)

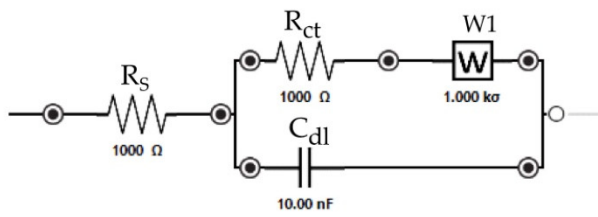


(d)

**Figure S3:** The SWV measurements curve of *B. candidus* venom measured after injected into rat at 30 (a), 60 (b), 120 (c) and 180 (d) min on individual biosensor.

## Warburg diffusion element

Circuit Fitting : -Z Imaginary / Z Real



$$Z_W = \frac{A_W}{\sqrt{\omega}} + \frac{A_W}{j\sqrt{\omega}}$$

Equivalent circuit : R([RW]C)

R = Resistor

W = Warburg element

C = Capacitor

- $A_W$  is the Warburg coefficient (or Warburg constant)
- $j$  is the imaginary unit
- $\omega$  is the angular frequency

**Figure S4:** Warburg diffusion element.