Abstract

The aim of the present study is to establish a rapid diagnostic reagent for detecting Naja naja atra (Taiwan cobra) and Bungarus multicinctus (Taiwan banded krait) venoms. The stationary phase of the kit was a nitrocellulose membrane in which the purified N. naja atra cardiotoxin 3 and Bungarus multicinctus b-bungarotoxin were dotted. The crude venom in solution was competed with the purified proteins on membrane for binding HRP-labeled anti-b-bungarotoxin antibodies or anti-cardiotoxin 3 antibodies. When the concentration of crude venom is higher than 0.1 ug/ml, the amount of antibodies bound with proteins on membrane is notably diminished. The reactivity of membrane's proteins is not significantly changed when it was stored at 4oC on a dry state. In the meantime, the stability of HRP-labeled antibodies is up to 10 months. The overall detecting procedure could be finished within 1.5 hr without significantly altering the sensitivity.

Keywords：Snake venom；Diagnostic reagent；Immunoblotting；Naja naja atra；Bungarus multicinctus