IMMUNOLOGICAL CROSS-REACTIVITY BETWEEN OPHIDIC TOXINS REVEALED BY ANTI-PEPTIDE ANTIBODIES Teixeira, F.R. ¹, Oliveira, E.B. ¹,

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It is widely established that antivenoms cross-react with venoms of phylogenetically related species, and that anti-toxin antibodies cross-react with other functionally and structurally related components of homologous and heterologous venoms. Only recently it was shown that affinity-purified antibodies against an undecapeptide derived from the <i> B.moojeni </i> L-amino acid oxidase cross-reacted with functionally unrelated venom toxins, among which two serine proteases and a phospholipase A2 homolog. In the present work we confirmed and extended the demonstration that immunological cross-reactivity in snake venoms includes also functionally unrelated proteins. First, we prepared rabbit anti-sera against a synthetic peptide (SSEHIAPLSLPSSPPI) whose sequence correspond to a segment of one of the various external loops of the <i> Crotalus durissus </i>
hrombin-like enzyme. The specificities of these antisera were then studied by using the affinity-purified anti-peptide antibodies to probe western blots of venoms of representative brazilian snakes, indicating that components besides the parental coagulating enzyme were also labeled in most cases. The specificities of the affinity-purified antibodies varied slightly depending on the N- or C- terminal coupling orientation of the peptide during the immunoabsorbent preparation. In summary, the anti-peptide antibodies raised against a well defined segment of the <i> C. durissus </i> thrombin-like enzyme cross-reacted with functionally unrelated venom components, as judged by the western blot analyses.

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