

# IMMUNIZATION WITH A SYNTHETIC DISCONTINUOUS DIEPITOPE INDUCE PROTECTIVE IMMUNE RESPONSE AGAINST *Tityus serrulatus* SCORPION TOXINS

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Scorpion stings in Brazil constitute a major health problem because of its large incidence and its capacity to cause severe clinical situations, often fatal among children. An antigenic discontinuous epitope within the sequence of TsNTxP, an immunogenic anatoxin from the *Tityus serrulatus* venom, was previously identified, synthesized and purified. This work has the objective to use this diepitope to immunize animals and access the neutralizing potential of the sera obtained. The peptide was coupled with ovalbumin, in order to increase its immunogenicity, and it was injected in Balb/c mice and New Zealand rabbits. *In vivo* protection assays showed that the vaccinated mice could resist the challenge of 2LD<sub>50</sub> of the *Tityus serrulatus* whole venom; a dose witch killed the entire control group. The rabbit's sera are still being tested. These results show that the generation of anti-peptide antibodies able to neutralize the cognate venom appears to be an alternative strategy for the easy preparation of therapeutic antivenoms or even vaccines against scorpion toxins.

**Key words:** antibodies, diepitope, synthetic peptide, *Tityus* toxins

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