

DIVERSITY OF ANTI-HEMOSTATIC BIOAMINES IN THE SALIVARY GLANDS OF *RHODNIUS* SPECIES

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Hematophagous insects have pharmacological components in the salivary glands, which counteract vertebrate host hemostasis to help blood-feeding. Several anticoagulant, vasodilators, and anti-platelet aggregators have been described in secreted triatomine bug's saliva. *Rhodnius* species account for more than 50% of triatomines in the Amazon Forest. Interestingly, it has been observed that close species *R. brethesi* and *R. robustus* have many differences towards their feeding. The main purpose of this study was to compare active bioamines present in *R. brethesi* and *R. robustus* salivary glands. Sequencing of *R. robustus* salivary glands cDNA library yielded 576 ESTs, comprising 122 clusters. The *R. brethesi* cDNA library yielded 427 sequences in 56 clusters. DataBank searches using blastx, RPSblast and SignalP revealed 23 clusters of secreted proteins for *R. brethesi* and 28 for *R. robustus*. Nearly half of salivary glands proteins present in the salivary glands of both insects had no ascribed molecular functions. Several lipocalins were present in both insects' saliva. Furthermore, a gamut of proteins are exclusively single species secreted, such as the inositol polyphosphate 5-phosphatase in *R. robustus* only. This study suggests divergent acquisitions of genes coding for proteins modulating the blood-feeding of *Rhodnius* sp.

Rhodnius, Salivary glands, cDNA libraries, ESTs.