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| Título | Preclinical evaluation of Amblyomin-X, a Kunitz-type protease inhibitor with antitumor activity |
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| Resumo | Amblyomin-X, a Kunitz-type protease inhibitor, is a recombinant protein that selectively induces apoptosis in tumor cells and promotes tumor reduction <i>in vivo</i> in melanoma animal models. Furthermore, Amblyomin-X was able to drastically reduce lung metastasis in a mice orthotopic kidney tumor model. Due to its antitumor activity, Amblyomin-X potential to become a new drug is currently under investigation, therefore the aim of the present study was to perform preclinical assays to evaluate Amblyomin-X toxicity in healthy mice. Exploratory toxicity assays have shown that treatment with 512 mg/kg of Amblyomin-X lead to animal mortality, therefore two groups of treatment were evaluated in the present work: in the acute toxicity assay, animals were injected once with doses ranging from 4 to 256 mg/kg of Amblyomin-X, while in the subacute toxicity assay, animals were injected with 0.25, 0.57 and 1 mg/kg of Amblyomin-X daily, during 28 days. Following this treatment regimens, Amblyomin-X did not cause any mortality; moreover, toxicity signs were discrete, reversible and observed only at the higher doses, thus establishing a safety profile for administration in mice, which can be further used to determine the dose translation of this novel drug candidate for treatment in other species. |
| Fomento | |