

Analytical aspects of Marinobufagenin and its applications in the diagnostic of preeclampsia

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Marinobufagenin (MBG), a bufadienolide cardiac inotrope, enjoys a growing interest in the early diagnostic of volume expansion-mediated hypertensive states such as preeclampsia (PE).

This endogenous mammalian vasoconstrictive compound inhibits the α_1 isoform of Na⁺,K⁺-ATPase, resulting in hypertension and natriuresis. The enhanced production of MBG in preeclamptic patients has been described, and demonstrated the need for a sensitive analytical method of MBG plasma levels.

Nowadays, the MBG standard compound is not commercially available. It forced us to develop a successful extraction method of MBG from the crystallized toad *Bufo Marinus* venom.