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Molecular and functional characterization of single-box high-mobility group B (HMGB) chromosomal protein from *Aedes aegypti*

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Abstract

High-mobility group B (HMGB) proteins have highly conserved, unique DNA-binding domains, HMG boxes, that can bind non-B-type DNA structures, such as bent, kinked and unwound structures, with high affinity. HMGB proteins also promote DNA bending, looping and unwinding. In this study, we determined the role of the *Aedes aegypti* single HMG-box domain protein *AaHMGB*; characterized its structure, spatiotemporal expression levels, subcellular localization, and nucleic acid binding activities; and compared these properties with those of its double-HMG-box

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