Inhibition of Functionalized 1,3-Dienes against *Trypanosoma cruzi*

Aivlé Cabrera[a,*], Diana Henríquez[b], Thamara Bustos[a], Julio Herrera[a], and Neudo Urdaneta[a]

[a] Departamento de Química, Universidad Simón Bolívar, Apartado 89000 – Caracas 1080A, Venezuela. Fax: +58-212-9063961. E-mail: acabrera@usb.ve
[b] Departamento de Biología Celular, Universidad Simón Bolívar, Apartado 89000 – Caracas 1080A, Venezuela

* Author for correspondence and reprint requests

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Six functionalized 1,3-dienes were synthesized using cross-coupling reactions, catalyzed by palladium complexes, between alkenylboronic acids and α-bromo-α,β-unsaturated carbonylic compounds. Their cytotoxicity against epimastigotes of *Trypanosoma cruzi* and fibroblastic Vero cells was evaluated, using concentrations ranging from 100 μM to 2.5 mM in experiments with three incubation times (4, 8 and 16 h). These tests were performed using MTT [3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide] colorimetric bioassays and its further reduction to formazan, according to the viability of the parasites and cells. With the exception of (5*E*,6*E*)-5-benzylidene-2-methylundec-6-en-4-one, all compounds were cytotoxic to both *Trypanosoma cruzi* and Vero cells, however differential values of IC_{50} were observed for two of these compounds. A possible structure-activity relationship is discussed.

Key words: 1,3-Dienes, *Trypanosoma cruzi*, Cytotoxicity