# Supplementary files

**Table 1.** Hydrogen bonds between trypanosomatid protein and their respective ligands.

| Glyceraldehyde-3-Phosphate Dehydrogenase | | | | | | Cytochrome c | | | | Lanosterol-14-alpha demetilase | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Protein ligand complex (NAD*) | | | | | | Protein ligand complex (HEME**) | | | | Protein ligand complex (HEME**) | | | | |
| | 1GYP | 1GYQ*** | 3DMT | 1QXS | 4P8R | | 4DY9 | 4GED | 3RIV | | 2X2N | 2WV2 | 2WVZ | 3L4D | 3P99 |
| | Number of binding | | | | | | Number of binding | | | | Number of binding | | | | |
| Phe10 | - | - | 1 | - | - | His29 | 1 | 1 | - | Tyr103 | 1 | 1 | 1 | - | 1 |
| Arg12 | 1 | 1 | 1 | - | 1 | Gly52 | 1 | - | - | Tyr102 | - | - | - | 1 | - |
| Ile13 | 1 | 1 | 1 | 1 | 1 | Tyr59 | 1 | - | - | Tyr115 | - | - | - | 1 | - |
| Asp38 | 1 | 1 | 1 | 1 | - | Ser60 | 1 | - | - | Tyr116 | 1 | 1 | 1 | - | - |
| Arg78 | - | - | - | - | 1 | Asn63 | 1 | - | - | Arg123 | - | - | - | 1 | - |
| Gln91 | - | 1 | 1 | 1 | - | Trp70 | 1 | - | - | Arg124 | 1 | 1 | 1 | - | 1 |
| Trh120 | - | - | - | - | 1 | Lys90 | 1 | - | - | Ala221 | 1 | - | - | - | - |
| Ser134 | 1 | 1 | 1 | - | - | Met91 | 1 | 1 | - | Arg360 | - | - | - | 1 | - |
| Asn335 | - | 1 | 1 | - | - | His192 | - | - | 1 | Arg361 | 1 | 1 | 1 | - | 1 |
| | | | | | | Glu196 | - | - | 1 | His420 | 1 | 1 | 1 | 1 | - |
| | | | | | | His198 | - | - | 1 | Cys422 | 1 | 1 | 1 | - | 1 |
| | | | | | | Ser202 | - | - | 1 | | | | | | |

* Nicotinamide-adenine-dinucleotide; ** Protoporphyrin ix containing Fe and *** N6-benzyl-nicotinamide-adenine-dinucleotide

# Supplementary files

**Figure S1.** Inhibition of lipid biosynthesis in promastigotes. (**A**) Effect of oxyranes on the biosynthesis of *L.* (*V.*) *braziliensis* promastigote ergosterol: Lipid extracts of 2810.5 ± 208 mg (fresh weight) of the promastigotes not incubated to the compounds (Control); incubated with IC50 values of epoxymethyl-lawsone (LAW = 16.3μM), epoxy-α-lapachone (LAP = 6.3 μM), miconazole (MIC = 2.0 μM), and commercial ergosterol standards (ER = 1 mg/mL); cholesterol (CH = 1 mg/mL), lanosterol (LA = 1 mg/mL), squalene (SQ = 1 mg/mL), and cholesterol ester (CE = 1 mg/mL) were evaluated by Thin layer chromatography (TLC) for 24 h. After the chromatography tests, the lipid profiles were developed using chromatography sheet with "charring" solution. Not identified (NI). (**B**) The quantification of *L.* (*V.*) *braziliensis* promastigote sterols was obtained according to arbitrary values of the density of the lanes, using the imageMaster program (version 1.11). Not identified 1 (NI1 ); Not identified 2; (NI2 ); Not identified 3 (NI3 ); ergosterol ( ); cholesterol ( ); epoxymethyl-lawsone (LAW), epoxy-α-lapachone (LAP), miconazole (MIC).