

Supplementary Materials for

## Anti-Helicobacter pylori Compounds from Oliveria decumbens Vent. through

## Urease Inhibitory In-vitro and In-silico Studies

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Volume 20, Issue 3 (Summer 2021)

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Figures S1-S18



**(b)** 



Figure S1. (a) <sup>1</sup>HNMR 500 MHz, in CDCl<sub>3</sub>: Octacosane, (b) EI-MASS :Octacosane



Figure S2.<sup>1</sup> HNMR 500 MHz, in CDCl<sub>3:</sub> Mixture of thymol and car vacrol



Figure S3<sup>.1</sup> HNMR 500 MHz, in CDCl<sub>3</sub>: Stigmasterol



Figure S4. <sup>1</sup>HNMR 500 MHz, in DMSO-d<sub>6</sub>: Kaempferol-3-O-(6"-O-trans-coumaryl)glucoside



Figure S5. <sup>13</sup>CNMR 125 MHz, in DMSO-d<sub>6</sub>: Kaempferol-3-O-(6"-O-trans-coumaryl)glucoside



**Figure S6.** <sup>1</sup>HNMR 500 MHz, in DMSO-d<sub>6</sub>: Kaempferol 3 -O-(6''-O-trans-coumaryl)glucoside 7-O-(6'''-O-trans-coumaryl) glucoside.



**Figure S7.** <sup>13</sup>CNMR 125, in DMSO-d<sub>6</sub>, Kaempferol 3 -O-(6''-O-trans-coumaryl)glucoside 7-O-(6'''-O-trans-coumaryl) glucoside.



**Figure S8.** COSY, in DMSO-d<sub>6</sub>, Kaempferol 3 -O-(6''-O-trans-coumaryl)glucoside 7-O-(6'''-O-trans-coumaryl) glucoside



**Figure S9.** NOSEY, in Acetone-d<sub>6</sub>, Kaempferol 3 -O-(6''-O-trans-coumaryl)glucoside 7-O-(6''-O-trans-coumaryl) glucoside



**Figure S10.** <sup>13</sup>CNMR 125 MHz, in DMSO-d<sub>6</sub>: 3-Hydroxythymol-6-O-D-Glucopyranoside- &6-Hydroxythymol-3-O-D-Glucopyranoside



**Figure S**11. <sup>1</sup>HNMR 500 MHz, in DMSO-d<sub>6</sub>, 3-Hydroxythymol-6-O-D-Glucopyranoside- &6-Hydroxythymol-3-O-D-Glucopyranoside



**Figure S12.** <sup>1</sup>HNMR 500 MHz, in DMSO-d<sub>6</sub>: : kaempferol 3-O-neohesperidoside-7-O-[2-O-(cis-feruloyl)]-D-glucopyranoside



**Figure S13.** <sup>13</sup>CNMR 125 MHz, in DMSO-d<sub>6</sub>: kaempferol 3-O-neohesperidoside-7-O-[2-O-(cis-feruloyl)]-D-glucopyranoside



**Figure S14.** Schematic interaction of the best docking resulting from AutoDock software presented by LigPlot software for thymol. In this figure, the compound exposure is highlighted in blue. Hydrogen bonding is in green and van der Waals interactions are in red circulars.



**Figure S15.** Schematic interaction of the best docking resulting from AutoDock software presented by LigPlot software for compound 7. In this figure, the compound exposure is highlighted in blue. Hydrogen bonding is in green and van der Waals interactions are in red circulars.



**Figure S16.** Schematic interaction of the best docking resulting from AutoDock software presented by LigPlot software for compound 8. In this figure, the compound exposure is highlighted in blue. Hydrogen bonding is in green and van der Waals interactions are in red circulars.



**Figure S17.** Schematic interaction of the best docking resulting from AutoDock software presented by LigPlot software for compound 6. In this figure, the compound exposure is highlighted in blue. Hydrogen bonding is in green and van der Waals interactions are in red circulars.



**Figure S18.** Schematic interaction of the best docking resulting from AutoDock software presented by LigPlot software for compound 9. In this figure, the compound exposure is highlighted in blue. Hydrogen bonding is in green and van der Waals interactions are in red circulars.