

## Supplementary Information

# Lavandula Luisieri and Lavandula Viridis Essential Oils as Upcoming Anti-protozoal Agents: a Key Focus on Leishmaniasis

Table S1. Composition of the essential oil of *Lavandula viridis*.

Constituents	Relative amount %
Tricyclene	0.2
$\alpha$ -Pinene	9.2
Camphene	2.7
Verbenene	0.5
Oct-1-ene-3-one	0.6
Sabinene	0.3
$\beta$ -Pinene	1.6
Myrcene	0.4
<i>p</i> -Cymene	0.4
1,8-Cineole	29.7
Limonene	1.0
<i>Z</i> - $\beta$ -Ocimene	0.6
<i>E</i> - $\beta$ -Ocimene	0.2
$\gamma$ -Terpinene	0.2
Linalool	9.0
Campholenal	0.3
3-Octanyl acetate	0.4
Camphor	10.4
$\alpha$ -Phellandrene oxide	0.5
<i>trans</i> -Verbenol	0.7
<i>para</i> -Mentha-1,5-dien-8-ol	0.8
Borneol	2.7
Terpinene-4-ol	0.6
Myrtenal	0.4
$\alpha$ -Terpineol	0.9
Verbenone	0.6
Linalyl acetate	0.3
Bornyl acetate	0.3
Geranyl acetate	1.1
Phenyl-2-methylbutirate	0.9
Germacrene D	1.2
$\beta$ -Selinene	0.9
$\alpha$ -Selinene	1.0
<i>Z</i> - $\alpha$ -Bisabolene	6.3
$\beta$ -Bisabolene	0.3
Selina-4(15),7(11)-diene	1.5
Selina-3,7(11)-diene	6.6
Germacrene B	0.8
<b>Monoterpene hydrocarbons</b>	<b>17.3</b>
<b>Oxygen containing monoterpenes</b>	<b>58.3</b>
<b>Sesquiterpene hydrocarbons</b>	<b>18.6</b>
<b>Oxygen containing sesquiterpenes</b>	<b>t</b>

<b>Other compounds</b>	<b>1.9</b>
<b>Total identified</b>	<b>96.1</b>

"t" = traces <0,05%.

**Table S2.** Composition of the essential oil of *Lavandula luisieri* (previously published by Videira, 2015).

<b>Constituents</b>	<b>Relative amount (%)</b>
3,5-dimethylene-1,4,4-trimethylcyclopentene	1.2
$\alpha$ -Pinene	2.3
Camphene	0.1
Verbenene	0.12
1-Octen-3-ol	0.1
Sabinene	0.1
$\beta$ -Pinene	0.3
$\delta$ -3-Carene	0.1
$\alpha$ -Phellandrene	t
<p>-Cymene</p>	0.2
1,8-Cineole	18.9
Limonene	0.1
3,4,4-Trimethyl-2-cyclohexanone	1.2
<i>cis</i> -Linalool oxide	0.9
<i>trans</i> -Linalool oxide	0.5
Linalool	3.1
2,3,4,5-Tetramethyl-2-cyclopenten-1-one*	0.3
$\alpha$ -Campholenal	0.1
Nopinone	0.1
Camphor	0.8
<i>trans</i> -Pinocarveol	0.3
3,4,5,5-Tetramethyl-1,3-cyclopentadienecarboxaldehyde*	0.7
<i>trans</i> - $\alpha$ -Necrodol*	8.9
Pinocarvone	0.2
Lavandulol	0.5
1,1,2,3-Tetramethyl-4-hydroxymethyl-2-cyclopentene*	2.6
2,3,4,4-Tetramethyl-5-methylidene-cyclopent-2-enone*	2.9
<p>-Cymen-8-ol</p>	0.1
Terpinene-4-ol	0.5
Myrtenal	0.2
$\alpha$ -Terpineol	0.3
Verbenone	0.5
Necrodyl acetate (isomer)*	2.3
<i>trans</i> - $\alpha$ -Necrodyl acetate*	19.5
Lavandulyl acetate	7.2
Lyratyl acetate*	2.5
3,4,5,5-Tetramethylcyclopenta-1,3-dienecarboxylic acid*	0.1
<i>cis</i> - $\alpha$ -Necrodyl acetate*	1.4
Neryl acetate	0.6
Cyclosativene	t
$\alpha$ -Copaene	0.3
Sativene	t
$\beta$ -Cubebene	t
<i>E</i> -Caryophyllene	0.1

Alloaromadendrene	0.2
β-Selinene	0.1
Bicyclosesquiphellandrene	t
epi-Cubebol	0.3
α-Selinene	0.2
α-Muurolene	0.1
γ-Muurolene	t
γ-Cadinene	0.3
Cubebol	0.3
Z-Calamelene	0.3
δ-Cadinene	0.4
α-Calacorene	0.1
Selin-3,7(11)diene	0.1
cis-α-Copaen-8-ol	0.5
Palustrol	0.1
Spathulenol	0.1
Caryophyllene oxide	0.4
Globulol	t
Viridiflorol	1.2
Humulene epoxide	0.3
Ledol	0.4
1- <i>epi</i> -Cubenol	0.2
1,10-di- <i>epi</i> -Cubenol	0.2
β-Copaen-4-α-ol	0.1
t-Muurolol	0.1
Cubenol	0.1
Torreyol	t
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<b>Monoterpene hydrocarbons</b>	<b>4.5</b>
<b>Oxygen containing monoterpenes (including 41.2% of necrodane derivatives*)</b>	<b>76.0</b>
<b>Sesquiterpene hydrocarbons</b>	<b>2.2</b>
<b>Oxygen containing sesquiterpenes</b>	<b>4.3</b>
<b>Other compounds</b>	<b>1.3</b>
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<b>Total identified</b>	<b>88.3</b>
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\*t = traces <0,05%.

## Reference

1. Videira R. Pesquisa de Inibidores Enzimáticos em Óleos Essenciais: Estudo da Actividade em BACE-1, uma Protease Aspártica Envolvida na Doença de Alzheimer. Tese de doutoramento, Universidade de Coimbra (2015).