

## Supplementary Tables

**Supplementary Table 1.** Minimum inhibitory concentrations (MIC) and minimum fungicidal concentrations (MFC) of farnesol against *C. albicans* clinical isolates and TCC10231 strains.

Strains	MIC (mg/mL )	MFC (mg/mL )
A1	16.8	33.6
A2	33.6	67.2
A3	33.6	33.6
A4	33.6	67.2
A5	33.6	67.2
A6	33.6	33.6
A7	33.6	67.2
A8	16.8	33.6
A9	33.6	67.2
A10	33.6	33.6
A11	33.6	33.6
A12	33.6	33.6
A14	16.8	16.8
A13	33.6	33.6
A15	33.6	33.6
ATCC10231	33.6	33.6

**Supplementary Table 2.** Minimum Inhibitory Concentrations (MIC) and Minimum Fungicidal Concentration (MFC) of carvacrol and cuminaldehyde against *C. albicans* ATCC10231 and *C. albicans* strains isolated from medical devices at the Tlemcen University Hospital.

<i>Candida</i> strains	MIC and MFC (mg/mL)			
	Carvacrol		Cuminaldehyde	
	MIC	MFC	MIC	MFC
ATCC10231	0.5	0.5	4	4
A1	0.5	1	4	4
A2	0.5	0.5	4	4
A3	1	2	4	4
A4	0.25	0.5	2	3
A5	1	1	4	>4
A6	0.5	0.5	3	4
A7	0.5	0.5	4	4
A8	1	1	4	>4
A9	1	1	4	4
A10	0.5	0.5	4	4
A11	1	2	4	4
A12	0.5	0.5	2	2
A13	1	2	4	>4
A14	0.5	0.5	4	4
A15	1	2	4	4

**Supplementary Table 3.** Minimum Inhibitory Concentrations (MIC) and Minimum Bactericidal Concentrations (MBC) of carvacrol and cuminaldehyde against bacteria co-isolated with *C. albicans*.

Bacteria strains	MIC and MBC (mg/mL)			
	Carvacrol		Cuminaldehyde	
	MIC	MBC	MIC	MBC
Ec2	1	1	1	1
Ec4	1	1	1	1
Ec13	1	1	1	1
Ps2	1	1	1	1
Ps3	1	1	1	1
Ab7	1	1	1	1
Ab11	1	1	2	2
Kp18	1	1	1	1
Se2	1	1	3	3
Se3	1	1	1	1
Se9	1	1	2	2
Se10	1	1	>4	>4
Sa6	1	1	2	2
Sa11	1	1	2	2
Sa24	1	1	2	2
Pm16	1	1	2	2

**Supplementary Table 4.** Interactions of carvacrol and cuminaldehyde against mono-species biofilm formed by *C. albicans* clinical isolates (SMIC<sub>50</sub>)

<i>Candida</i> strains	SMIC (mg/mL)			
	Carvacrol	Cuminaldehyde	Carvacrol / Cuminaldehyde	FICI
<b>ATCC10231</b>	0.75	6	0.125/2	0.49
<b>A5</b>	1.5	7	0.25/1	0.30
<b>A6</b>	1.5	6	0.25/1	0.33
<b>A7</b>	1.5	6	0.125/1	0.24
<b>A2</b>	1.5	7	0.25/2	0.44
<b>A10</b>	1	7	0.06/2	0.34

SMIC<sub>50</sub>: Sessile MIC, defined as the concentration that causes 50% reduction in optical density of the biofilms compared to the optical density of the untreated biofilm formed by the same isolates; FICI : fractional inhibitory concentration index

**Supplementary Table 5.** Interactions of carvacrol and cuminaldehyde against mono-species biofilm formed by *C. albicans* clinical isolates (SMIC<sub>80</sub>)

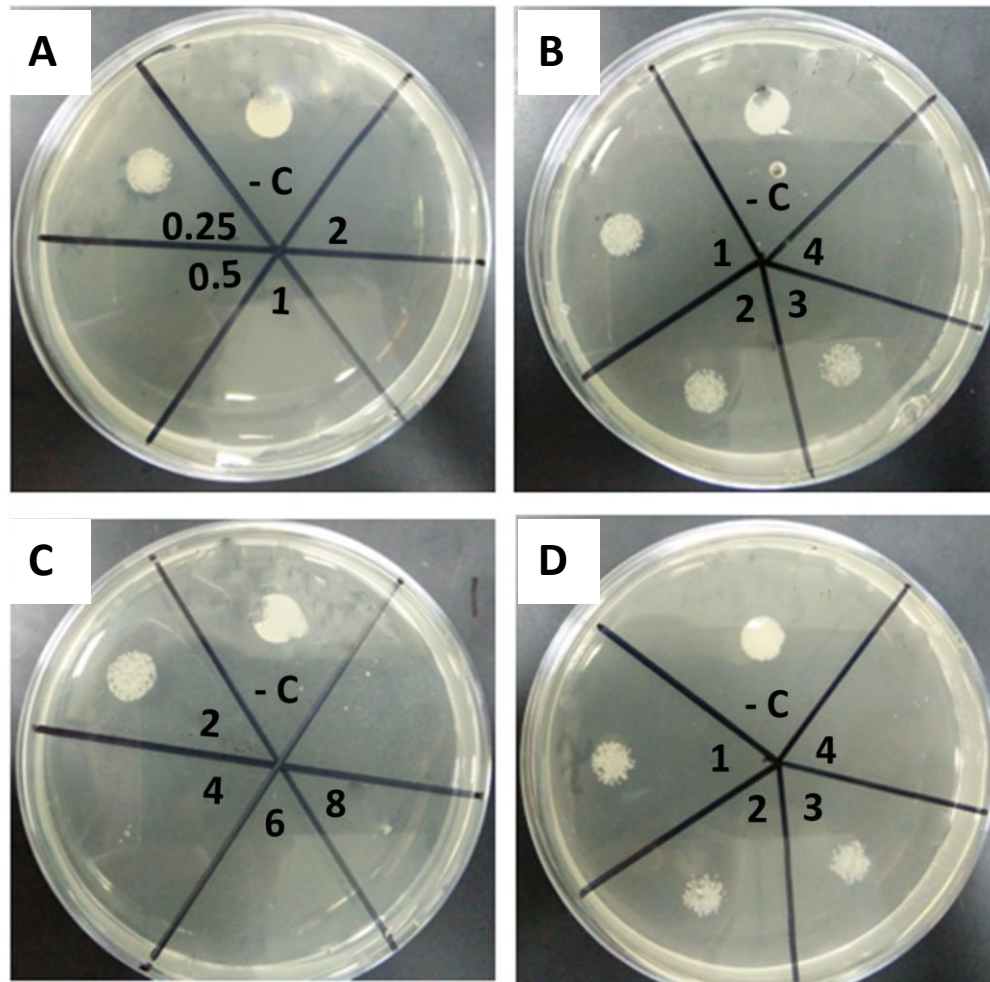
<i>Candida</i> strains	SMIC (mg/mL)			
	Carvacrol	Cuminaldehyde	Carvacrol / Cuminaldehyde	FICI
<b>ATCC10231</b>	1	6	0.25/1	0.41
<b>A5</b>	2	8	0.5/2	0.5
<b>A6</b>	2	8	0.25/1	0.25
<b>A7</b>	2	8	0.25/2	0.37
<b>A2</b>	2	8	0.5/4	0.75
<b>A10</b>	2	8	0.12/4	0.56

SMIC<sub>80</sub> : sessile MIC, defined as the concentration that causes 80% reduction in biofilms formation.

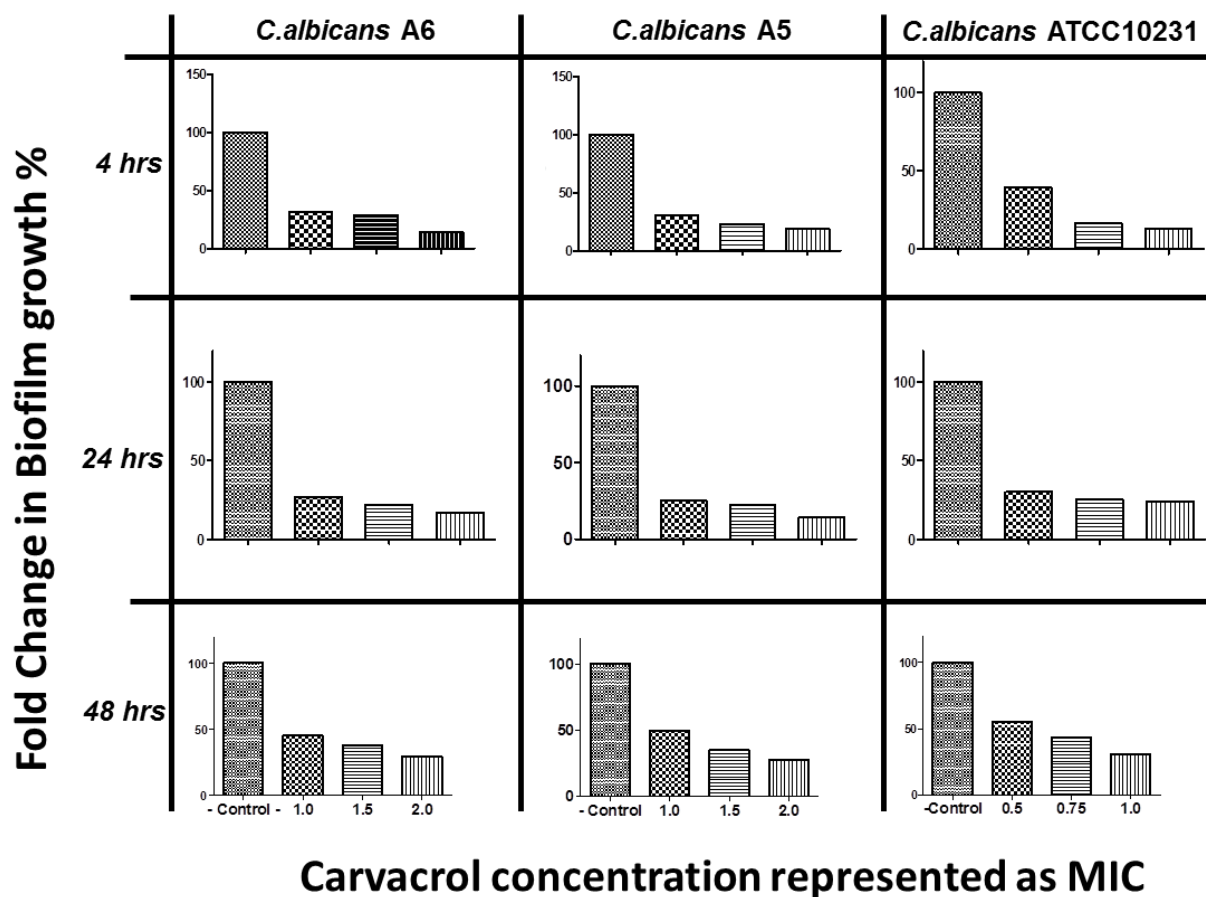
**Supplementary Table 6.** Interactions of carvacrol with farnesol against planktonic cells of *C. albicans* after 48h of incubation.

Strains	MIC (mg/mL)			FICI	Interactions
	Carvacrol	Farnesol	Carvacrol/ Farnesol		
<b>ATCC10231</b>	0.5	33.6	0.03+0.2	0.06	Synergy
<b>A1</b>	0.5	16.8	0.125+1.2	0.33	Synergy
<b>A2</b>	0.5	33.6	0.03+1.2	0.10	Synergy
<b>A3</b>	1	33.6	0.06+0.2	0.06	Synergy
<b>A4</b>	0.25	33.6	0.03+0.4	0.13	Synergy
<b>A5</b>	1	33.6	0.125+1.2	0.17	Synergy
<b>A6</b>	0.5	33.6	0.06+1.2	0.16	Synergy
<b>A7</b>	0.5	33.6	0.125+0.4	0.26	Synergy
<b>A8</b>	1	16.8	0.25+0.4	0.28	Synergy
<b>A9</b>	1	33.6	0.25+0.4	0.26	Synergy
<b>A10</b>	0.5	33.6	0.06+0.8	0.15	Synergy
<b>A11</b>	1	33.6	0.25+0.8	0.28	Synergy
<b>A12</b>	0.5	33.6	0.125+1.2	0.29	Synergy
<b>A13</b>	1	33.6	0.25+0.8	0.28	Synergy
<b>A14</b>	0.5	16.8	0.125+1.2	0.33	Synergy
<b>A15</b>	1	33.6	0.125+0.8	0.15	Synergy

## Supplementary Figures

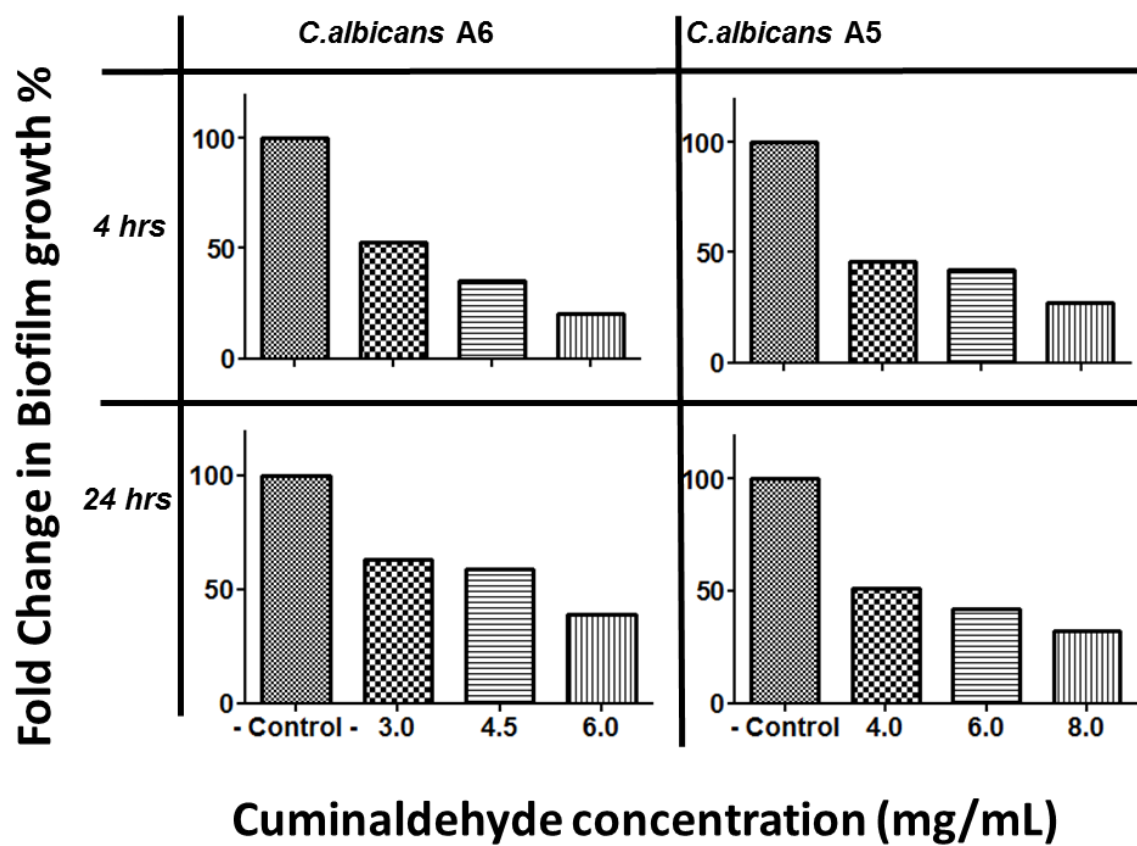


**Supplementary Figure 1. Spot test assay of carvacrol and cuminaldehyde at different concentration on *Candida* spp.** (A) Effect of carvacrol on *C. albicans* ATCC10231 reference strain. (B) Effect of carvacrol on *C. albicans* A5 clinical isolate. (C) Effect of cuminaldehyde on *C. albicans* ATCC10231. (D) Effect of cuminaldehyde on A5.



**Supplementary Figure 2.** The inhibitory effect of carvacrol on *C. albicans* biofilm formation at different time points and determined by MTT reduction assays. *C. albicans* cells were allowed to adhere to 96-well plates at different times (4h, 24h and 48h), followed by treatment with various MIC concentrations of carvacrol including 1.0, 1.5 and 2.0MIC prior to incubation at 37°C. The antibiofilm activity of the compound was assessed in terms of metabolic activity by the MTT assay.





Supplementary Figure 3. The inhibitory effects of cuminaldehyde on *C. albicans* biofilm formation.