

**Supporting Information**

# **Synthesis and Evaluation of the Antioxidant Activity of Lipophilic Phenethyl Trifluoroacetate Esters by In Vitro ABTS, DPPH and in Cell-Culture DCF Assays**

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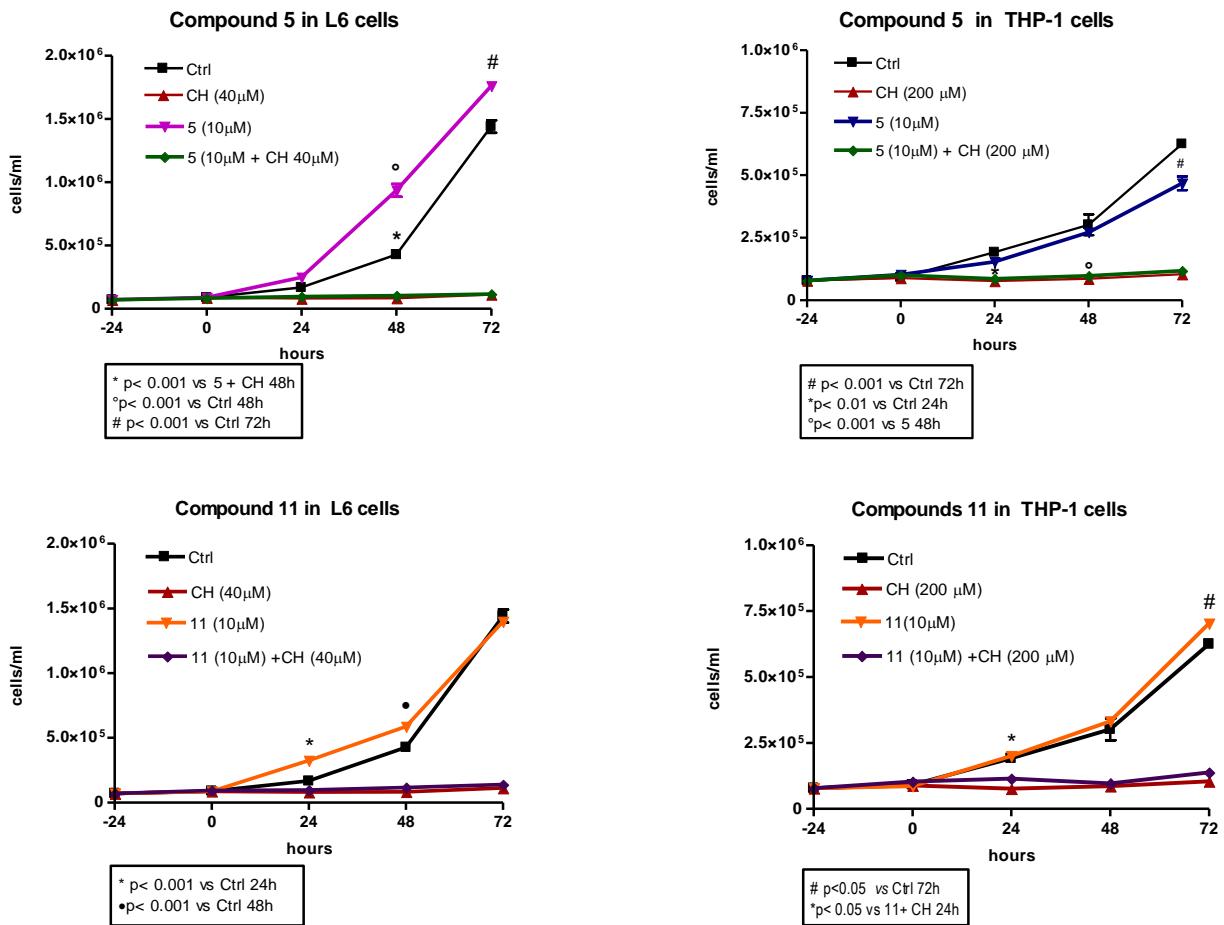
**Table SI1.** DPPH assay of phenethylalcohols **1-6** and trifluoroacetyl esters **7-12**.<sup>a</sup>

Compound	IC <sub>50</sub>	Δ <sub>IC</sub>	ARA	Δ <sub>ARA</sub>
<b>1</b>	167	3	0,0060	0,0002
<b>2</b>	40,4	0,3	0,0248	0,0007
<b>3</b>	33	2	0,0301	0,0009
<b>4</b>	397	5	0,0025	0,0001
<b>5</b>	0,373	0,008	2,68	0,08
<b>6</b>	0,156	0,006	6,4	0,2
<b>7</b>	1328	31	0,0008	0,00002
<b>8</b>	1031	21	0,0010	0,00003
<b>9</b>	1163	22	0,0009	0,00003
<b>10</b>	22,1	0,6	0,045	0,001
<b>11</b>	0,50	0,02	1,99	0,06
<b>12</b>	0,123	0,004	8,1	0,24
<b>Trolox</b>	0,221	0,006	4,5	0,14

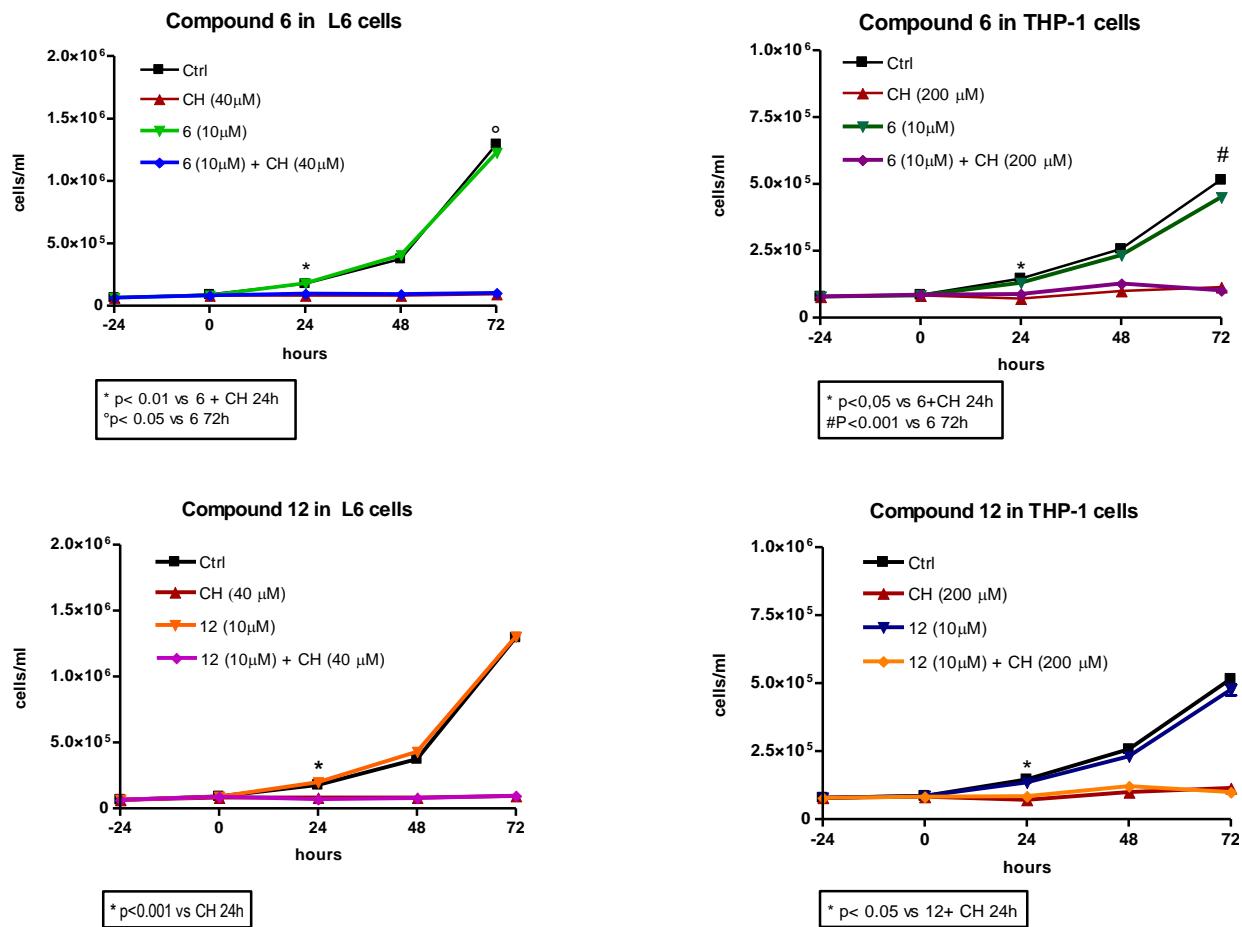
<sup>a</sup> IC<sub>50</sub> values were extrapolated from each calibration line as the concentration of sample that decreases by 50% DPPH radical absorbance. Anti-radical activity (ARA) was calculated as the inverse of IC<sub>50</sub>. Statistical analyses were performed by Student's *t* test and one-way analysis of variance (ANOVA).

**Table SI2.** DCF assay: determination of intracellular ROS after stimulation with cumene hydroperoxide (CH) in presence of phenethyl alcohols **1-6** or their trifluoroacetyl esters **7-12** at 10 µM concentration on both cell lines L6 and THP-1. Data are reported as mean values ± SD of five experiments. Statistical analysis performed with one-way ANOVA test and Bonferroni post-test and for **4**, **6**, and **12** with Student's *t* test.

Compounds	L-6			THP-1		
	Mean	SD	N	Mean	SD	N
CH	100	1	76	100	1	51
<b>1</b>	31	6	4	33	6	3
<b>2</b>	23	9	7	25	6	3
<b>3</b>	25	7	7	23	8	5
<b>4</b>	41	7	13	25	6	3
<b>5</b>	22	6	6	21	3	4
<b>6</b>	7	2	4	14	5	3
<b>7</b>	29	7	6	30	3	3
<b>8</b>	26	7	8	25	7	5
<b>9</b>	25	7	3	28	3	4
<b>10</b>	21	10	7	20	5	5
<b>11</b>	20	7	3	23	4	4
<b>12</b>	4	1	5	16	3	3



**Figure SI1.** Effect of **5** and **11** (10 µM) on the proliferation of L6 and THP-1 cells in the absence and presence of cumene hydroperoxide (CH: 40 µM in L6 and 200 µM in THP-1 cells, respectively). Cell counting was done with a Neubauer Chamber. Data are reported as mean values ± SD of each compound tested in duplicate. Statistical analysis performed with one-way ANOVA test and Bonferroni post-test.



**Figure SI2.** Effect of **6** and **12** (10  $\mu$ M) on the proliferation of L6 and THP-1 cells in the absence and presence of cumene hydroperoxide (CH: 40  $\mu$ M in L6 and 200  $\mu$ M in THP-1 cells, respectively). Cell counting was done with a Neubauer Chamber. Data are reported as mean values  $\pm$  SD of each compound tested in duplicate. Statistical analysis performed with one-way ANOVA test and Bonferroni post-test.