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SUPPLEMENTARY DATA

Copper complexes with terpene derivatives of ethylenediamine: synthesis, antibacterial, antifungal and antioxidant activity

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Crystallographic data (excluding atomic coordinates and displacement parameters) has been deposited with the Cambridge Crystallographic Data Centre as supplementary publication CCDC-2113093 for **3**. These data can be obtained free of charge at www.ccdc.cam.ac.uk.

Table S1

Antibacterial and antifungal activity of copper complexes **1-4** and ligands **L1-L4**. Agar diffusion assay, inhibition zone diameter, mm.

Compound	*B. subtilis 6633 B1*	*S. aureus 511 B3*	*E. coli 458 B4*	*P. aeruginosa SG137 B7*	*P. aeruginosa K799/61 B9*	*S. aureus (MRSA) 134/93 R9*	*M. vaccae 10670 M4*	*Sporobolom Salmonicolor 549 H4*	*Candida albicans H8*	*Penicillium notatum JP36 P1*
1	20±0.5	16±0.5	21±1	13±1	12±1	16±1	27±1	32±0.5	26±1	29±1
2	21±1	19±0.5	21±0.5	13±1	12±0.5	20±1	29±0.5	30±1	27±0.5	26±0.5
3	22±0.5	16±1	25±0.5	15±1	11±1	22±0.5	34±1	32±1	27±1	29±0.5
4	22±1	21±1	26±1	0	12±1	20±1	28±1	32±0.5	23±1	29±1
L1	0	0	0	0	11±1	0	16±1	0	0	0
L2	0	0	0	0	15±1	0	0	0	0	0
L3	0	0	0	0	0	0	0	0	0	0
L4	0	0	0	0	12±1	0	0	0	0	0
Cip	28±1	21±1	23±0.5	26±1	27±1	0	23±1			
Amph								18±1	21±1	20±1

DMSO	10±1	12±1	11±0.5	11±0.5	11±0.5	11±1	11±1	12±0.5	0	12±1
5c[12]			23	21		24				
6c[12]			21	20		22				
7a[11]			21			20			10	
7b[11]			21			18			10	

Table S2

AOA of the test compounds (copper complexes **1-4**, ligands **L1** and **L2**) at concentrations of 100 and 500 μM. C - control without test compounds. I - intact samples (without initiated oxidation). BHT - standard antioxidant 2,6-di-tert-butyl-4-methylphenol.

Variant	**TBA-RS, nmol/ml**			
	Fe^{2+}/ascorbate - Initiator LPO		H_2O_2 – Initiator LPO	
	Compound concentration 100 μM	Compound concentration 500 μM	Compound concentration 100 μM	Compound concentration 500 μM
C	51.2±1.1		46.2±0.3	
I	31.2±1,6		35.6±0,3	
1	48.5±1.7	9.3±0.9	39.0±0.6	9.5±0.5
L1	60.8±0.6	41.4±0.4	37.1±0.5	41.5±0.2
2	57.0±0.9	11.1±0.3	41.1±0.8	7.2±0.1
L2	56.3±0.1	33.9±0.7	39.1±0.3	40.5±0.3
3	58.7±0.7	7.0±0.1	39.7±0.3	10.0±0.3
4	7.2±0.2	10.5±0.5	7.6±0.2	10.4±0.5
BHT	4.7±0.2	3.9±0.1	5.2±0.1	5.1±0.2

Table S3

Hemolytic activity of the test compounds (copper complexes **1-4**, ligands **L1** and **L2**) at a concentration of 10 μM after 1, 3 and 5 h of incubation. C - control without test compounds. BHT - standard antioxidant 2,6-di-tert-butyl-4-methylphenol.

Variant	**Hemolysis, %**		
	1 h	3 h	5 h
C	1,7±0,1	3,3±0,2	4,9±0,0
1	1,4±0,1	3,5±0,2	6,3±0,3
2	1,2±0,1	4,9±0,2	11,3±0,6
3	1,2±0,1	2,5±0,1	5,8±0,3
4	1,8±0,1	3,6±0,1	5,0±0,2
L1	1,8±0,0	3,1±0,1	5,3±0,1
L2	1,7±0,0	3,3±0,1	5,7±0,3

BHT	4,1±0,3	6,0±0,3	7,9±0,4

Table S4

RSA of the test compounds (copper complexes **1-4**, ligands **L1** and **L2**) in the test with DPPH at a concentration of 100 μM. BHT - standard antioxidant 2,6-di-tert-butyl-4-methylphenol.

Compound	**RSA, %**
1	25,28±0,48
L1	19,45±0,90
2	32,24±0,51
L2	40,32±0,66
3	2,40±0,16
4	2,21±0,21
BHT	23,45±1,45