

Supplementary Materials

Table S1. Antifungal chemosensitization of kojic acid (KA; mM) to hydrogen peroxide (H₂O₂; mM) at different temperatures tested against *Penicillium* strains. Summary of CLSI-based microdilution bioassays (Average MFC/FFCI values of Group A, B, C strains at 24 h) (MICs at 24 h are not determined due to no growth of all strains examined) ^a.

	Compounds	MFC Alone	MFC Combined	FFCI
Group A (<i>P. expansum</i> W1, FR2, W2, FR3)				
28 °C				
Mean	KA	25.6 ^b	11.2	1.0
	H ₂ O ₂	7.0	4.0	
<i>t</i> -test	KA	-	<i>P</i> < 0.005 ^c	-
	H ₂ O ₂	-	<i>P</i> < 0.05	-
35 °C				
Mean	KA	25.6	12.8	1.0
	H ₂ O ₂	2.0	1.0	
<i>t</i> -test	KA	-	<i>P</i> < 0.005	-
	H ₂ O ₂	-	<i>P</i> < 0.005	-
45 °C				
Mean	KA	25.6	11.2	0.9
	H ₂ O ₂	0.6	0.3	
<i>t</i> -test	KA	-	<i>P</i> < 0.005	-
	H ₂ O ₂	-	<i>P</i> < 0.1	-
Group B (<i>P. glabrum</i> 766, <i>P. chrysogenum</i> 824, <i>P. griseofulvum</i> 2159)				
28 °C				
Mean	KA	25.6	13.9	1.1
	H ₂ O ₂	14.7	8.0	
<i>t</i> -test	KA	-	<i>P</i> , insignificant	-
	H ₂ O ₂	-	<i>P</i> , insignificant	-
35 °C				
Mean	KA	25.6	17.1	1.3
	H ₂ O ₂	8.0	4.7	
<i>t</i> -test	KA	-	<i>P</i> , insignificant	-
	H ₂ O ₂	-	<i>P</i> , insignificant	-
45 °C				
Mean	KA	25.6	17.1	1.5
	H ₂ O ₂	1.1	0.9	
<i>t</i> -test	KA	-	<i>P</i> , insignificant	-
	H ₂ O ₂	-	<i>P</i> , insignificant	-
Group C (<i>P. italicum</i> 983, <i>P. digitatum</i> 786):				
28 °C				
Mean	KA	25.6	19.2	0.8
	H ₂ O ₂	3.0	2.5	
<i>t</i> -test	KA	-	ND ^d	-
	H ₂ O ₂	-	ND ^d	-

Table S1. Cont.

	Compounds	MFC Alone	MFC Combined	FFCI
35 °C				
Mean	KA	25.6	25.6	2.0
	H ₂ O ₂	1.0	1.0	
<i>t</i> -test	KA	-	ND ^d	-
	H ₂ O ₂	-	ND ^d	-
45 °C				
Mean	KA	/	/	ND ^e
	H ₂ O ₂	/	/	
<i>t</i> -test	KA	-	/	-
	H ₂ O ₂	-	/	-

^a MIC: Minimum inhibitory concentration, MFC: Minimum fungicidal concentration, FICI: Fractional Inhibitory Concentration Indices, FFCI: Fractional Fungicidal Concentration Indices. ^b KA was tested up to 12.8 mM. For calculation purpose, 25.6 mM (doubling of 12.8 mM) was used. ^c Student's *t*-test for paired data (combined, *i.e.*, chemosensitization) was *vs.* mean MFC of each compound (alone, *i.e.*, no chemosensitization) determined in strains. ^d ND, Not determined (Few data). ^e ND, Not determined (No growth of *P. digitatum* 786).

Table S2. Antifungal chemosensitization of kojic acid (KA; mM) to hydrogen peroxide (H₂O₂; mM) at different temperatures, tested against strains of *Penicillium*: summary of CLSI-based microdilution bioassays (24 h) ^a.

28 °C	Compounds	MIC Alone	MIC Combined	FICI	MFC Alone	MFC Combined	FFCI
Group A							
<i>P. expansum</i> W1	KA	/	/	/	25.6 ^b	12.8	1.0
	H ₂ O ₂	/	/		8	4	
<i>P. expansum</i> FR2	KA	/	/	/	25.6	6.4	0.8
	H ₂ O ₂	/	/		8	4	
<i>P. expansum</i> W2	KA	/	/	/	25.6	12.8	1.5
	H ₂ O ₂	/	/		4	4	
<i>P. expansum</i> FR3	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		8	4	
Group B							
<i>P. glabrum</i> 766	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		32	16	
<i>P. chrysogenum</i> 824	KA	/	/	/	25.6	3.2	0.6
	H ₂ O ₂	/	/		8	4	
<i>P. griseofulvum</i> 2159	KA	/	/	/	25.6	25.6	2.0
	H ₂ O ₂	/	/		4	4	
Group C							
<i>P. italicum</i> 983	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		2	1	
<i>P. digitatum</i> 786	KA	/	/	/	25.6	25.6	2.0
	H ₂ O ₂	/	/		4	4	

Table S2. Cont.

35 °C	Compounds	MIC Alone	MIC Combined	FICI	MFC Alone	MFC Combined	FFCI
Group A							
<i>P. expansum</i> W1	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		2	1	
<i>P. expansum</i> FR2	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		2	1	
<i>P. expansum</i> W2	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		2	1	
<i>P. expansum</i> FR3	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		2	1	
Group B							
<i>P. glabrum</i> 766	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		16	8	
<i>P. chrysogenum</i> 824	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		4	2	
<i>P. griseofulvum</i> 2159	KA	/	/	/	25.6	25.6	2.0
	H ₂ O ₂	/	/		4	4	
Group C							
<i>P. italicum</i> 983	KA	/	/	/	25.6	25.6	2.0
	H ₂ O ₂	/	/		1	1	
<i>P. digitatum</i> 786	KA	/	/	/	25.6	25.6	2.0
	H ₂ O ₂	/	/		1	1	
45 °C	Compounds	MIC Alone	MIC Combined	FICI	MFC Alone	MFC Combined	FFCI
Group A							
<i>P. expansum</i> W1	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		0.5	0.25	
<i>P. expansum</i> FR2	KA	/	/	/	25.6	6.4	0.8
	H ₂ O ₂	/	/		0.5	0.25	
<i>P. expansum</i> W2	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		0.5	0.25	
<i>P. expansum</i> FR3	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		1	0.5	
Group B							
<i>P. glabrum</i> 766	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		0.25	0.125	
<i>P. chrysogenum</i> 824	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		1	0.5	
<i>P. griseofulvum</i> 2159	KA	/	/	/	25.6	25.6	2.0
	H ₂ O ₂	/	/		2	2	
Group C							
<i>P. italicum</i> 983	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		0.125	0.0625	
<i>P. digitatum</i> 786	KA	/	/	/	-	-	ND ^c
	H ₂ O ₂	/	/		-	-	

^a MIC: Minimum inhibitory concentration, MFC: Minimum fungicidal concentration, FICI: Fractional Inhibitory Concentration Indices, FFCI: Fractional Fungicidal Concentration Indices. ^b KA was tested up to 12.8 mM. For calculation purpose, 25.6 mM (doubling of 12.8 mM) was used. ^c ND, Not determined (No growth of *P. digitatum* 786).

Table S3. Antifungal chemosensitization of kojic acid (KA; mM) to hydrogen peroxide (H₂O₂; mM) at different temperatures, tested against strains of *Penicillium*: summary of CLSI-based microdilution bioassays (48 h) ^a.

28 °C	Compounds	MIC Alone	MIC Combined	FICI	MFC Alone	MFC Combined	FFCI
Group A							
<i>P. expansum</i> W1	KA	25.6	3.2	0.6	25.6 ^b	12.8	1.0
	H ₂ O ₂	4	2		4	2	
<i>P. expansum</i> FR2	KA	25.6	6.4	0.8	25.6	12.8	1.0
	H ₂ O ₂	4	2		4	2	
<i>P. expansum</i> W2	KA	25.6	12.8	0.8	25.6	3.2	0.6
	H ₂ O ₂	4	1		4	2	
<i>P. expansum</i> FR3	KA	25.6	6.4	0.8	25.6	12.8	1.0
	H ₂ O ₂	4	2		4	2	
Group B							
<i>P. glabrum</i> 766	KA	25.6	1.6	0.6	25.6	12.8	1.0
	H ₂ O ₂	16	8		16	8	
<i>P. chrysogenum</i> 824	KA	25.6	25.6	2.0	25.6	25.6	2.0
	H ₂ O ₂	4	4		4	4	
<i>P. griseofulvum</i> 2159	KA	25.6	25.6	2.0	25.6	3.2	0.6
	H ₂ O ₂	4	4		4	2	
Group C							
<i>P. italicum</i> 983	KA	25.6	12.8	1.0	25.6	25.6	2.0
	H ₂ O ₂	2	1		2	2	
<i>P. digitatum</i> 786	KA	25.6	12.8	1.0	25.6	25.6	2.0
	H ₂ O ₂	4	2		4	4	
35 °C	Compounds	MIC Alone	MIC Combined	FICI	MFC Alone	MFC Combined	FFCI
Group A							
<i>P. expansum</i> W1	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		1	0.5	
<i>P. expansum</i> FR2	KA	/	/	/	25.6	12.8	0.8
	H ₂ O ₂	/	/		2	0.5	
<i>P. expansum</i> W2	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		1	0.5	
<i>P. expansum</i> FR3	KA	/	/	/	25.6	12.8	0.8
	H ₂ O ₂	/	/		2	0.5	
Group B							
<i>P. glabrum</i> 766	KA	25.6	6.4	0.8	25.6	6.4	0.8
	H ₂ O ₂	4	2		8	4	
<i>P. chrysogenum</i> 824	KA	25.6	25.6	2.0	25.6	25.6	2.0
	H ₂ O ₂	1	1		2	2	
<i>P. griseofulvum</i> 2159	KA	25.6	3.2	0.6	25.6	25.6	2.0
	H ₂ O ₂	2	1		2	2	
Group C							
<i>P. italicum</i> 983	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		1	0.5	
<i>P. digitatum</i> 786	KA	/	/	/	25.6	25.6	2.0
	H ₂ O ₂	/	/		0.25	0.25	

Table S3. Cont.

45 °C	Compounds	MIC Alone	MIC Combined	FICI	MFC Alone	MFC Combined	FFCI
Group A							
<i>P. expansum</i> W1	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		0.5	0.25	
<i>P. expansum</i> FR2	KA	/	/	/	25.6	25.6	2.0
	H ₂ O ₂	/	/		0.125	0.125	
<i>P. expansum</i> W2	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		0.5	0.25	
<i>P. expansum</i> FR3	KA	/	/	/	25.6	12.8	1.0
	H ₂ O ₂	/	/		0.5	0.25	
Group B							
<i>P. glabrum</i> 766	KA	/	/	/	-	-	ND ^c
	H ₂ O ₂	/	/		-	-	
<i>P. chrysogenum</i> 824	KA	/	/	/	-	-	ND ^c
	H ₂ O ₂	/	/		-	-	
<i>P. griseofulvum</i> 2159	KA	/	/	/	25.6	25.6	2.0
	H ₂ O ₂	/	/		2	2	
Group C							
<i>P. italicum</i> 983	KA	/	/	/	-	-	ND ^c
	H ₂ O ₂	/	/		-	-	
<i>P. digitatum</i> 786	KA	/	/	/	-	-	ND ^c
	H ₂ O ₂	/	/		-	-	

^a MIC: Minimum inhibitory concentration, MFC: Minimum fungicidal concentration, FICI: Fractional Inhibitory Concentration Indices, FFCI: Fractional Fungicidal Concentration Indices. ^b KA was tested up to 12.8 mM. For calculation purpose, 25.6 mM (doubling of 12.8 mM) was used. ^c ND, Not determined (No growth of *Penicillium* strains).