Supplementary Material to manuscript:

Effects of extracts and compounds from *Tricholoma populinum* LANGE on degranulation, IL-2 and IL-8 secretion of immune cells


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HPLC chromatogram of dichloromethane extracts of fruiting bodies of *T. populinum*.  

- **Green line:** dichloromethane extract from lyophilized fruiting bodies  
- **Brown line:** dichloromethane extract from lyophilized and heated fruiting bodies  
- **Blue line:** dichloromethane extract from dried fruiting bodies  

Peak identification by MS spectrum (LCMS-8030, Shimadzu Co., Kyoto, Japan).  

<table>
<thead>
<tr>
<th>retention time [min]</th>
<th>peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.335</td>
<td>fatty acid (linolic acid?)</td>
</tr>
<tr>
<td>15.146</td>
<td>oleic acid</td>
</tr>
<tr>
<td>16.088</td>
<td>9,11-dehydroergosterol peroxide</td>
</tr>
<tr>
<td>17.136</td>
<td>ergosterol peroxide</td>
</tr>
<tr>
<td>26.006</td>
<td>ergosterol</td>
</tr>
</tbody>
</table>
DC chromatogram of fractions of the dichloromethane of dried fruiting bodies of *T. populnum*.

numbers indicate no. of fractions

stationary phase: normal phase silica gel (Merck KgaA, Darmstadt, Germany)
mobile phase: chloroform/methanol 90:10
detection: molybdatophosphoric acid, heating at ca. 100 °C for 5 min

fraction 2 showed activity in the degranulation assay
1H-NMR spectrum of oleic acid (1)
1H-NMR spectrum of ergosterol peroxide (2)

SpinWorks 3: Merivan_4

file: .../alan/NMR/alanin/merivan_4/2/file expn: <exp3> transitonor freq.: 500.120011 MHz
transient size: 32768 points
width: 10000.00 Hz = 19.953 ppm = 0.08176 Hz/pnt
number of scans: 32

file: .../alan/NMR/alanin/merivan_4/2/file expn: <exp3> freq. of 0 ppm: 500.120011 MHz
processed size: 32768 complex points
LB: 0.000 GF: 0.0000
Ha/cm: 152.275 ppm/cmn: 0.30447

HSQC spectrum of ergosterol peroxide (2)

SpinWorks 3: Merivan_4

file: .../alan/NMR/alanin/merivan_4/2/file expn: <exp3> freq. of 0 ppm: 500.120001 MHz
processed size: 2048 complex points
window function: Sine SQUARED
shift: 90.0 degrees
Ha/cm: 466.641 ppm/cmn: 0.39098

file: .../alan/NMR/alanin/merivan_4/2/file expn: <exp3> freq. of 0 ppm: 125.750022 MHz
processed size: 1604 complex points
window function: Sine SQUARED
shift: 90.0 degrees
Ha/cm: 1024.067 ppm/cmn: 14.4421
1H-NMR spectrum of 9,11-Dehydroergosterol peroxide (3)

HSQC spectrum of 9,11-Dehydroergosterol peroxide (3)
S8  1H-NMR spectrum of cerevisterol (4)

File: .../nmr/MDNMDM/MDNMDM.mdf

SpinWorks 3: Merdivan_6

width: 10000.00 Hz × 19.9930 ppm = 0.302176 Hz/pt
number of scans: 32

freq. of 0 ppm: 500.120014 MHz
processed size: 32768 complex points
LB: 0.000  (QP: 0.000)
Hz/cm: 152.441  ppm/cm: 0.20466

S9  HSQC spectrum of cerevisterol (4)

File: .../nmr/MDNMDM/MDNMDM.fid

SpinWorks 3: Merdivan_6

width (F2): 1886.25 Hz × 11.7865 ppm × 2.8790 Hz/pt
number of scans: 64

freq. of 0 ppm: 500.120001 MHz
processed size: 3048 complex points
window function: Sine Squared
shift: 90.0 degrees
Hz/cm: 152.441  ppm/cm: 0.20466

freq. of 0 ppm: 125.753322 MHz
processed size: 1534 complex points
window function: Sine Squared
shift: 90.0 degrees
Hz/cm: 152.441  ppm/cm: 14.4421