Supporting Information

Quantitative Analysis of Prenylated Constituents in Commercial Hops Samples Using Ultrahigh-Performance Supercritical Fluid Chromatography*

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* Dedicated to Professor Dr. Wolfgang Kubelka on the occasion of his 85th birthday.

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Table 1S Overview on selected hops samples for the quantitation of compounds 1-5.

<table>
<thead>
<tr>
<th>Code</th>
<th>Declared content of hops extract per unit</th>
<th>Application form</th>
<th>Health claim</th>
<th>Daily intake recommendation</th>
<th>Further declared ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prod1</td>
<td>40 mg (= 8.3% of the capsule)</td>
<td>capsule</td>
<td>n.g.</td>
<td>2 capsules</td>
<td>lactose, gelatin, magnesium stearate, mannitol, maltodextrin, gelatin, titanium dioxide</td>
</tr>
<tr>
<td>Prod2</td>
<td>125 mg (= 23% of the capsule)</td>
<td>capsule</td>
<td>n.g.</td>
<td>1-3 times 1 capsule</td>
<td></td>
</tr>
<tr>
<td>Prod3</td>
<td>300 mg (= 77% of the capsule)</td>
<td>capsule</td>
<td>n.g.</td>
<td>3 times 1 capsule (the extract is enriched with xanthohumol: 16 mg per daily dose)</td>
<td>hydroxypropylmethylcellulose, maltodextrin, magnesium salts of food fatty acids</td>
</tr>
<tr>
<td>Prod4</td>
<td>125 mg [extracted with MeOH 50% (v/v)]</td>
<td>coated tablet</td>
<td>relaxing, balancing, against stress and sleeplessness</td>
<td>2-3 times 1 coated tablet</td>
<td>lactose, sorbitol, sucrose</td>
</tr>
<tr>
<td>Prod5</td>
<td>n.a.</td>
<td>crude hop flowers</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Prod6</td>
<td>n.a.</td>
<td>crude hop flowers</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

n.g.: not given; n.a.: not applicable
**Fig. 1S** Column screening with MeOH as the cosolvent (PDA at 220 nm): BEH (1.7 µm), BEH 2-EP (1.7 µm), CSH FP (1.7 µm), Silica 2-EP (5 µm), 1-AA (1.7 µm), 2-PIC (1.7 µm), DEA (1.7 µm), and DIOL (1.7 µm). Column dimensions: 100 mm × 3 mm.
Fig. 2S Cosolvent screening with the DIOL (1.7 µm) column. Column dimensions: 100 mm × 3 mm.
**Fig. 3S** Cosolvent screening with the BEH 2-EP (1.7 μm) column. Column dimensions: 100 mm × 3 mm.
Fig. 4S Influence of different acidic additives to the cosolvent IPA on the separation of compounds 1-5. Panels from the top: mobile phase without additive; IPA + 0.1% formic acid; IPA + 0.1% acetic acid; IPA + 0.1% trifluoroacetic acid.
**Fig. 5S** Influence of different makeup solvents on the ionization in negative and positive modes (TIC): (i) mixture of 99% MeOH and 1% H₂O with 0.1% formic acid, (ii) a mixture of 95% MeOH and 5% H₂O with 10 mM ammonium acetate, and (iii) a mixture of 95% MeOH and 5% H₂O with 10 mM ammonium formate.
Fig. 6S UPC²-PDA chromatograms (220 nm) of the six hops samples (Prod1-6) with optimized parameters on BEH 2-EP (1.7 µm, 100 mm × 3 mm).