Supporting Information

Treatment with Mountain-Cultivated Ginseng Alleviates Trimethyltin-Induced Cognitive Impairments in Mice via IL-6-Dependent JAK2/STAT3/ERK Signaling

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Materials and Methods

HPLC analysis

The extract containing ginsenoside composition was analyzed by HPLC as described previously [1]. The total ginsenoside content and ginsenoside composition of each sample were analyzed thrice. The pure ginsenoside standards (99% pure) were purchased from Chromadex and Ambo Institute. A Waters 1525 binary HPLC system and Eurospher 100-5 C18 (Knauer, 3 · 250 mm) column were used for the experiment. A mixture of acetonitrile (HPLC grade; J.T. Baker) and distilled water (HPLC grade; J.T. Baker) was used as a mobile phase. The content of acetonitrile was sequentially increased from 17 to 25% (20 min), 25 to 42% (38 min), 42 to 100% (42 min), 100 to 100% (52 min), and finally from 100 to 17% (62 min, lasting for 10 min). The operating temperature was set at room temperature and a flow rate of 0.8 mL/min. The elution profile on the chromatogram was obtained using a UV/VIS detector at 203 nm (Waters 2487 dual k absorbance detector).
Fig. 1S Representative HPLC chromatogram of ginsenosides in the MCG (reproduced with permission from our previous study [2]).
Table 1S The content of total ginsenosides and each ginsenoside in the water extract of MCG.

<table>
<thead>
<tr>
<th>Ginsenosides</th>
<th>Mountain cultivated ginseng (7 years old) % w/w</th>
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</thead>
<tbody>
<tr>
<td>Rb1</td>
<td>0.630 ± 0.467</td>
</tr>
<tr>
<td>Rb2</td>
<td>0.388 ± 0.287</td>
</tr>
<tr>
<td>Rc</td>
<td>0.397 ± 0.296</td>
</tr>
<tr>
<td>Rd</td>
<td>0.044 ± 0.032</td>
</tr>
<tr>
<td>Re</td>
<td>1.149 ± 0.852</td>
</tr>
<tr>
<td>Rf</td>
<td>0.180 ± 0.134</td>
</tr>
<tr>
<td>Rg1</td>
<td>0.505 ± 0.375</td>
</tr>
<tr>
<td>Rg2</td>
<td>0.239 ± 0.178</td>
</tr>
<tr>
<td>Rh1</td>
<td>0.034 ± 0.025</td>
</tr>
<tr>
<td>F1</td>
<td>0.044 ± 0.032</td>
</tr>
<tr>
<td><strong>Total ginsenosides</strong></td>
<td><strong>3.568% w/w</strong></td>
</tr>
</tbody>
</table>

*aThe sum of individual ginsenoside content. Each value is the mean ± SEM (n = 3). SEM, standard error of the mean.*
References
