Ethanol extract powder of the melinjo (*Gnetum gnemon* L.) seeds

### General information

**Melinjo (*Gnetum gnemon* L.)** is one of the species of the family *Gnetaceae*, native to Java Island and Malay Peninsula. Its fruit, seed, leaf and flower have been used as a food in Indonesia. The seed looks like an acorn at around 2 cm in diameter.

**Major components and its activity**

Melinjo contains various polyphenols such as *trans*-resveratrol, gnetin C, gnemonoside A and gnemonoside D<sup>*</sup>. Gnetin C is a resveratrol dimer. Gnemonoside A and gnemonoside D are glycosides of gnetin C. “Melinjo resveratrols” means stilbenes including these four polyphenols in melinjo.

*Trans*-resveratrol is mainly included in skin of grape, thin skin of almond, root of Japanese knotweed (*Fallopia japonica*) and fruit of lingonberry. The most authoritative journal *Nature* reported that the lifespan of mice administrated a high-calorie diet with *trans*-resveratrol was longer than that of mice administrated only a high-calorie diet in 2006:<sup>2</sup> This report made resveratrol famous and has developed its research.

*Trans*-resveratrol has been shown to have antioxidant, anti-inflammatory, anti-aging<sup>3</sup>, cardiovascular protection<sup>4</sup>, anti-tumor<sup>5</sup>, cerebrovascular protection<sup>5</sup>, anti-metabolic syndrome<sup>6</sup>, and anti-dementia<sup>7</sup> properties.

Melinjo seed extract containing melinjo resveratrols has been reported to exert lipase and amylase inhibition, anti-bacterial, antioxidant<sup>1</sup>, angiogenesis inhibition<sup>8</sup>, immunostimulatory<sup>9</sup> and anti-metabolic syndrome<sup>10</sup> effects.

### Reference


### Sample information

<table>
<thead>
<tr>
<th>Country of origin</th>
<th>Indonesia</th>
<th>Use</th>
<th>For research</th>
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</thead>
<tbody>
<tr>
<td><strong>Properties of the sample</strong></td>
<td>Lyophilized powder, which contains &gt;20 % Melinjo resveratrols.</td>
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<td><strong>How to store</strong></td>
<td>Store at room temperature, avoiding direct sunlight, high temperature and humidity. Solutions containing this sample should be stored at 4°C or under. This sample dissolved in DMSO is stable for 1 month.</td>
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<td><strong>Precautions</strong></td>
<td>After opening the container, seal it off at storage and use the sample as soon as possible, because of its hygroscopic property.</td>
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