

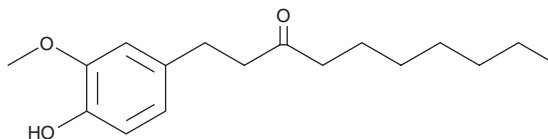
# PRODUCT INFORMATION



## 6-Paradol

Item No. 27554

**CAS Registry No.:** 27113-22-0  
**Formal Name:** 1-(4-hydroxy-3-methoxyphenyl)-3-decanone  
**MF:** C<sub>17</sub>H<sub>26</sub>O<sub>3</sub>  
**FW:** 278.4  
**Purity:** ≥98%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Item Origin:** Synthetic



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

6-Paradol is supplied as a crystalline solid. A stock solution may be made by dissolving the 6-paradol in the solvent of choice, which should be purged with an inert gas. 6-Paradol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 6-paradol in these solvents is approximately 30, 25, and 10 mg/ml, respectively.

6-Paradol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 6-paradol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 6-Paradol has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

6-Paradol is a phenolic ketone that has been found in ginger (*Z. officinale*) and has diverse biological activities, including antioxidant, anti-inflammatory, and anti-hyperglycemic properties.<sup>1,2,3</sup> It inhibits hydrogen peroxide-induced oxidation of cell-free calf thymus DNA when used at a concentration of 100 μM.<sup>1</sup> *In vitro*, 6-paradol (10 μg/ml) inhibits LPS-induced nitric oxide (NO), IL-6, and TNF-α production by mouse BV-2 microglia.<sup>2</sup> *In vivo*, 6-paradol (6.75 mg/kg per day) lowers blood glucose levels in an oral glucose tolerance test (OGTT) and inhibits weight-gain in a mouse model of high-fat diet-induced obesity.<sup>3</sup>

### References

1. Chung, W.-Y., Jung, Y.-J., Surh, Y.-J., *et al.* Antioxidative and antitumor promoting effects of [6]-paradol and its homologs. *Mutat. Res.* **496(1)**, 199-206 (2001).
2. Gaire, B.P., Kwon, O.W., Park, S.H., *et al.* Neuroprotective effect of 6-paradol in focal cerebral ischemia involves the attenuation of neuroinflammatory responses in activated microglia. *PLoS One* **10(3)**, e0120203 (2015).
3. Wei, C.-K., Tsai, Y.-H., Korinek, M., *et al.* 6-Paradol and 6-shogaol, the pungent compounds of ginger promote glucose utilization in adipocytes and myotubes, and 6-paradol reduces blood glucose in high-fat diet-fed mice. *Int. J. Mol. Sci.* **18(1)**, E168 (2017).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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