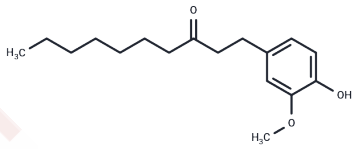
# Data Sheet (Cat.No.T7113)

TargetMol

## Paradol

### Chemical Properties



CAS No. : 27113-22-0

Formula: C17H26O3

Molecular Weight: 278.39

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

### Biological Description

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|---|---|
| Description | Paradol ([6]-Gingerone) is a pungent phenolic substance found in ginger and other Zingiberaceae plants, and exhibits a variety of biological activities including anti-cancer, anti-inflammatory, and anti-oxidative activities,neuroprotective Effects. |
| Targets(IC50) | COX |
| In vivo | EAE-symptomatic mice were treated with 6-shogaol or 6-paradaol (5 mg/kg, p.o.) once daily for 14 days (between days 29 and 42 after immunization).Both 6-shogaol and 6-paradol significantly improved EAE-relevant symptoms from the fourth day after drug administration (between days 32 and 42) except days 36 and 37 in the 6-paradol-treated EAE group compared to the vehicle-treated EAE group (Fig. 1A, Supplementary Table 1). The effectiveness of 6-shogaol and 6-paradol was also clearly shown from cumulative clinical scores from days 30 to 43.Administration of 6-paradol or 6-shogaol significantly reduced the cumulative clinical score (6-shogaol, 25.25%;6-paradol, 25.75%) compared to the vehicle-treated EAE group.6-shogaol and its metabolite, 6-paradaol, exert neuroprotective effects against EAE.Moreover, these molecules are therapeutically effective for EAE[1]. |
| Animal Research | MOG35-55 was emulsified in an equal amount of CFA.?Mice were anesthetized with isoflurane and 200 μg of emulsion MOG35-55 in CFA was injected subcutaneously at the start day of immunization (day 1). In addition, 400 ng of Bordetella pertussis toxin (PTX) per mouse was injected intraperitoneally on the start day of MOG immunization and 2 days later.?Mice were weighed and monitored daily for clinical symptoms of EAE as follows: 0, no clinical signs of EAE;?0.5, some lack of tone, however, some strength at the base of tail;?1.0, total loss of tail tonicity and flaccid tail;?2.0, hind limb weakness;?2.5, incomplete paralysis of one or both hind limbs;?3.0, total paralysis of one or both hind limbs;?4.0, hind and fore limbs paralysis;?5.0, death from disease.?For drug administration, symptomatic EAE mice were divided into three groups;?(1) the vehicle-treated EAE group, (2) the 6-shogaol-treated EAE group, and (3) the 6-paradol-treated EAE group.?Vehicle (10% Tween 80), 6-shogaol (5 mg/kg), or 6-paradol (5 mg/kg) was orally administered daily into symptomatic EAE mice from day 29 to day 42 (for 13 days) post immunization[1]. |

### Solubility Information

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|---|---|
| Solubility | DMSO: 250 mg/mL (898.02 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (7.18 mM),Sonication is recommended.<br>*Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.* |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 3.5921 mL | 17.9604 mL | 35.9208 mL |
| 5 mM | 0.7184 mL | 3.5921 mL | 7.1842 mL |
| 10 mM | 0.3592 mL | 1.796 mL | 3.5921 mL |
| 50 mM | 0.0718 mL | 0.3592 mL | 0.7184 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Arjun Sapkota,Se Jin Park, and Ji Woong Choi,et al.Neuroprotective Effects of 6-Shogaol and Its Metabolite, 6-Paradol, in a Mouse Model of Multiple Sclerosis[J].Biomol Ther (Seoul). 2019 Feb; 27(2): 152-159.

Breemen R B V , Tao Y , Li W . Cyclooxygenase-2 inhibitors in ginger (Zingiber officinale)[J]. Fitoterapia, 2011, 82(1): 38-43.



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