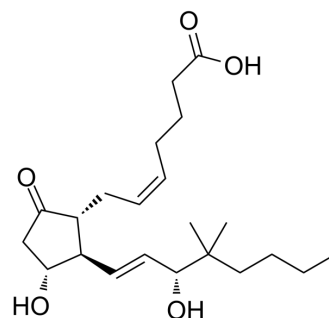


## 16,16-Dimethyl prostaglandin E2

|                    |  |
|--------------------|--|
| Cat. No.:          | HY-106420                                      |
| CAS No.:           | 39746-25-3                                     |
| Molecular Formula: | C <sub>22</sub> H <sub>36</sub> O <sub>5</sub> |
| Molecular Weight:  | 380.52   |
| Target:            | Prostaglandin Receptor                         |
| Pathway:           | GPCR/G Protein                                 |
| Storage:           | Solution, -20°C, 2 years                       |



### SOLVENT & SOLUBILITY

|          |  |
|----------|--|
| In Vitro | DMSO : 100 mg/mL (262.80 mM; Need ultrasonic)  |
| In Vivo  | <ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline<br/>Solubility: ≥ 2.5 mg/mL (6.57 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline)<br/>Solubility: ≥ 2.5 mg/mL (6.57 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil<br/>Solubility: ≥ 2.5 mg/mL (6.57 mM); Clear solution</li> </ol> |

### BIOLOGICAL ACTIVITY

|             |  |  |
|-------------|--|--|
| Description | 16,16-Dimethyl prostaglandin E2 (16,16-dimethyl PGE2) is an orally active vertebrate Hematopoietic stem cells (HSCs) homeostasis critical regulator. 16,16-Dimethyl prostaglandin E2 can act through EP2/EP4 and has an interaction with the Wnt pathway <sup>[1][2]</sup> .   |  |
| In Vivo     | 16,16-Dimethyl prostaglandin E2 (16,16-dimethyl PGE2; 10 µg/kg; i.p.; every 12 hours; for 8 days) rescues the exacerbated DSS colitis phenotype of Tpl2 <sup>IMF-KO</sup> mice and restores epithelial proliferation and structure <sup>[2]</sup> .<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |  |
|             | Animal Model:  | Tpl2 <sup>IMF-KO</sup> mice <sup>[2]</sup>   |
|             | Dosage:  | 10 µg/kg   |
|             | Administration:  | IP; every 12 hours; for 8 days   |
|             | Result:  | Rescued the exacerbated DSS colitis phenotype and restores epithelial proliferation and structure. |

### REFERENCES

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[1]. Hagedorn EJ, et al. Getting more for your marrow: boosting hematopoietic stem cell numbers with PGE2. *xp Cell Res.* 2014 Dec 10;329(2):220-6.

[2]. Roulis M, et al. Intestinal myofibroblast-specific Tpl2-Cox-2-PGE2 pathway links innate sensing to epithelial homeostasis. *Proc Natl Acad Sci U S A.* 2014 Oct 28;111(43):E4658-67.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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