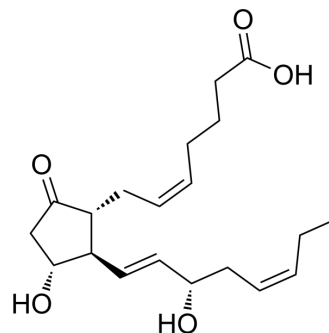


Prostaglandin E3

Cat. No.:	HY-113481
CAS No.:	802-31-3
Molecular Formula:	C ₂₀ H ₃₀ O ₅
Molecular Weight:	350.45
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Prostaglandin E3 is an eicosanoid derived from eicosapentaenoic acid. Prostaglandin E3 inhibits polarization towards M1 but promotes polarization of M2a macrophages. Prostaglandin E3 shows anti-inflammatory and anti-tumor activity ^[1] .																
In Vitro	Prostaglandin E3 (1-10000 nM) suppresses M1 and induces M2a marker expression in polarized macrophages ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.																
In Vivo	<p>Prostaglandin E3 (1 μmol/L; i.p.) modulates macrophage polarization towards an anti-inflammatory function in LPS (HY-D1056) (5 mg/kg)-induces acute inflammation model^[1].</p> <p>Prostaglandin E3 (1 μmol/L; every 3 days for 4 weeks) shows anti-tumor activity by regulates macrophage polarization^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>5 weeks, Nude mice (BABL/c) (PC3 xenograft model)^[1]</td> </tr> <tr> <td>Dosage:</td> <td>1 μmol/L for 50 μL</td> </tr> <tr> <td>Administration:</td> <td>Injected next to the tumour, every 3 days for 4 weeks</td> </tr> <tr> <td>Result:</td> <td>Decreased the weights of transplanted tumours, inhibits the expression of CD68 and CD206.</td> </tr> </table> <table border="1"> <tr> <td>Animal Model:</td> <td>6-8-week-old C57BL6/J mice^[1]</td> </tr> <tr> <td>Dosage:</td> <td>LPS+ PGE3 (5 mg/kg + 1 μmol/L)</td> </tr> <tr> <td>Administration:</td> <td>i.p.; once</td> </tr> <tr> <td>Result:</td> <td>Significantly reduced MPMs with an M1-like phenotype and increased M2-like MPMs, inhibited inflammatory cytokine secretion in both the serum and MPM cell lysates.</td> </tr> </table>	Animal Model:	5 weeks, Nude mice (BABL/c) (PC3 xenograft model) ^[1]	Dosage:	1 μmol/L for 50 μL	Administration:	Injected next to the tumour, every 3 days for 4 weeks	Result:	Decreased the weights of transplanted tumours, inhibits the expression of CD68 and CD206.	Animal Model:	6-8-week-old C57BL6/J mice ^[1]	Dosage:	LPS+ PGE3 (5 mg/kg + 1 μmol/L)	Administration:	i.p.; once	Result:	Significantly reduced MPMs with an M1-like phenotype and increased M2-like MPMs, inhibited inflammatory cytokine secretion in both the serum and MPM cell lysates.
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REFERENCES

[1]. Cui J, et al. Prostaglandin E3 attenuates macrophage-associated inflammation and prostate tumour growth by modulating polarization. J Cell Mol Med. 2021 Jun;25(12):5586-5601.

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

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