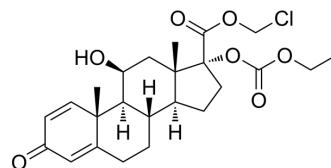


## Loteprednol Etabonate

|                           |   |       |         |
|---------------------------|---|-------|---------|
| <b>Cat. No.:</b>          | HY-17358  |       |         |
| <b>CAS No.:</b>           | 82034-46-6  |       |         |
| <b>Molecular Formula:</b> | C <sub>24</sub> H <sub>31</sub> ClO <sub>7</sub>                            |       |         |
| <b>Molecular Weight:</b>  | 466.95  |       |         |
| <b>Target:</b>            | Glucocorticoid Receptor; Bacterial; Antibiotic                              |       |         |
| <b>Pathway:</b>           | Immunology/Inflammation; Vitamin D Related/Nuclear Receptor; Anti-infection |       |         |
| <b>Storage:</b>           | Powder  | -20°C | 3 years |
|                           |   | 4°C   | 2 years |
|                           | In solvent  | -80°C | 2 years |
|                           |   | -20°C | 1 year  |



### SOLVENT & SOLUBILITY

|   |   |                          |              |            |            |
|---|---|--------------------------|--------------|------------|------------|
| <b>In Vitro</b>   | DMSO : 100 mg/mL (214.16 mM; Need ultrasonic)   |                          |              |            |            |
|   |   | Solvent<br>Concentration | Mass<br>1 mg | 5 mg       | 10 mg      |
|   | <b>Preparing Stock Solutions</b>  | 1 mM                     | 2.1416 mL    | 10.7078 mL | 21.4156 mL |
|   |   | 5 mM                     | 0.4283 mL    | 2.1416 mL  | 4.2831 mL  |
| 10 mM   |   | 0.2142 mL                | 1.0708 mL    | 2.1416 mL  |            |
| Please refer to the solubility information to select the appropriate solvent. |   |                          |              |            |            |
| <b>In Vivo</b>  | 1. Add each solvent one by one: 10% DMSO >> 90% corn oil<br>Solubility: ≥ 2.5 mg/mL (5.35 mM); Clear solution |                          |              |            |            |

### BIOLOGICAL ACTIVITY

|                    |  |
|--------------------|--|
| <b>Description</b> | Loteprednol etabonate (LE) is an orally active "soft" steroid belonging to a unique class of glucocorticoids. Loteprednol etabonate (LE) exhibits anti-inflammatory activity and has been used in optometry and ophthalmology <sup>[1][2][3]</sup> .   |
| <b>In Vivo</b>     | Intravenous administration of Loteprednol etabonate (5 mg/kg) to dogs reveals a terminal half-life of 2.8 h, a volume of distribution of 3.7 L/kg, and a total body clearance of 0.9 L/h/kg. Intact loteprednol etabonate was not detectable in the urine. After oral administration of the drug (5 mg/kg) to dogs, only metabolites, but no intact drug, were found in the plasma, an indication for a high first-pass effect.<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

### REFERENCES

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- [1]. Noble S, Goa KL. Loteprednol etabonate: clinical potential in the management of ocular inflammation. *BioDrugs*. 1998 Oct;10(4):329-39.
- [2]. Szelenyi I, Hochhaus G, Heer S et al. Loteprednol etabonate: a soft steroid for the treatment of allergic diseases of the airways. *Drugs Today (Barc)*. 2000 May;36(5):313-20.
- [3]. Howes JF. Loteprednol etabonate: a review of ophthalmic clinical studies. *Pharmazie*. 2000 Mar;55(3):178-83.
- [4]. Pavesio CE, Decory HH. Treatment of ocular inflammatory conditions with loteprednol etabonate. *Br J Ophthalmol*. 2008 Apr;92(4):455-9.
- [5]. Comstock TL, Decory HH. Advances in corticosteroid therapy for ocular inflammation: loteprednol etabonate. *Int J Inflam*. 2012;2012:789623.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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