

PRODUCT INFORMATION



Lumula

Item No. 16685

Formal Name: N-ethyl-9 α ,11 α -dihydroxy-15-oxo-20 α ,20 β -dihomoprost-5-en-1-amide

Synonyms: Maxeyprost, Unoprostone N-ethyl amide

MF: C₂₄H₄₃O₄

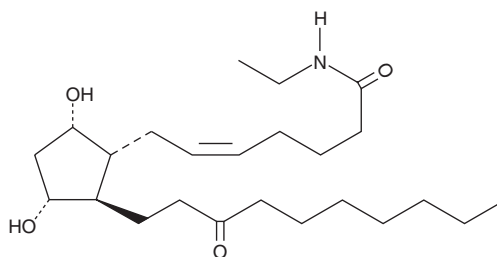
FW: 309.6

Purity: \geq 98%

Supplied as: A solution in methyl acetate

Storage: -20°C

Stability: \geq 2 years



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

Laboratory Procedures

Lumula is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of lumula in these solvents is approximately 25 mg/ml. Lumula is stable for at least six months in these solvents if stored at -20°C.

Lumula is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, lumula should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Lumula is miscible in a solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Lumula is a hybrid eicosanoid analog that incorporates the docosanoid and prostamide features of unoprostone (Item No. 16680) and bimatoprost (17-phenyl trinor Prostaglandin F_{2 α} ethyl amide; Item No. 16820), respectively, prostaglandin analogs that lack potency at the prostanoid FP receptor.¹⁻³ Based on classical structure-activity relationships that have been established for prostanoid receptors, lumula is predicted to have low activity at these receptors.⁴ The N-ethyl amide prodrug moiety it inherits from bimatoprost is slow to hydrolyze and the lower side chain modifications inherited from unoprostone interfere with FP receptor binding.^{5,6} Lumula is intended for use as a negative control for testing mechanisms of unoprostone and bimatoprost activity.

References

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2. Sharif, N. A., Kelly, C. R., and Williams, G. W. *Prostaglandin Leukot. Essent. Fatty Acids* **68(1)**, 27-33 (2003).
3. Yu, D. Y., Su, E. N., Cringle, S. J., *et al. Invest. Ophthalmol. Vis. Sci.* **42(7)**, 1499-1504 (2001).
4. Abramovitz, M., Adam, M., Boie, Y., *et al. Biochimica et Biophysica Acta* **1483**, 285-293 (2000).
5. Maxey, K. M., Johnson, J., Camras, C. B., *et al. Suv. Ophthalmol.* **47(4)**, S34-S40 (2002).
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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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