

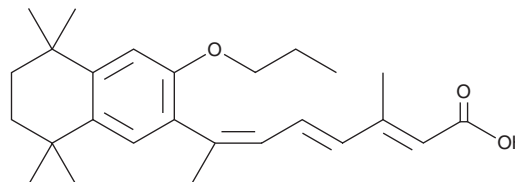
PRODUCT INFORMATION



LG 100754

Item No. 19647

CAS Registry No.: 180713-37-5
Formal Name: 3-methyl-7-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-3-propoxy-2-naphthalenyl)-2E,4E,6Z-octatrienoic acid
Synonyms: CD3159, LGD 100754, UVI2112
MF: C₂₆H₃₆O₃
FW: 396.6
Purity: ≥98%
UV/Vis.: λ_{max}: 246, 256, 318 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

LG 100754 is supplied as a crystalline solid. A stock solution may be made by dissolving the LG 100754 in the solvent of choice. LG 100754 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of LG 100754 in these solvents is approximately 5, 20, and 30 mg/ml, respectively.

LG 100754 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, LG 100754 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. LG 100754 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

LG 100754 is a ligand of retinoid X receptor (RXR) that modulates the activity of RXR dimers. It acts as an antagonist towards RXR homodimers but as an agonist of heterodimers consisting of RXR and retinoic acid receptor (RAR) or PPARs.¹⁻³ LG 100754, at 1 μM, is a weak agonist of RXR-PPARγ but strongly enhances signaling through the heterodimer in response to PPARγ ligands, including rosiglitazone (Item No. 71740) and 15-deoxy-Δ^{12,14}-prostaglandin J₂ (Item No. 18570).⁴ Through this action, LG 100754 decreases glucose levels and relieves insulin resistance in mice.^{4,5}

References

1. Hida, T., Tai, K., Tokuhara, N., *et al.* Existence of retinoic acid-receptor-independent retinoid X-receptor-dependent pathway in myeloid cell function. *Jpn. J. Pharmacol.* **85(1)**, 60-69 (2001).
2. Lala, D.S., Mukherjee, R., Schulman, I.G., *et al.* Activation of specific RXR heterodimers by an antagonist of RXR homodimers. *Nature* **383(6599)**, 450-453 (1996).
3. Schulman, I.G., Li, C.J., Schwabe, W.R., *et al.* The phantom ligand effect: Allosteric control of transcription by the retinoid X receptor. *Genes Dev.* **11(3)**, 299-308 (1997).
4. Forman, B.M. The antidiabetic agent LG100754 sensitizes cells to low concentrations of peroxisome proliferator-activated receptor gamma ligands. *J. Biol. Chem.* **277(15)**, 12503-12506 (2002).
5. Cesario, R.M., Klausning, K., Razzaghi, H., *et al.* The rexinoid LG100754 is a novel RXR:PPARγ agonist and decreases glucose levels *in vivo*. *Mol. Endocrinol.* **15(8)**, 1360-1369 (2001).

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.

WARRANTY AND LIMITATION OF REMEDY

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