

Certificate of Analysis

Print Date: May 4th 2022

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Product Name: LE 135 Catalog No.: 2021 Batch No.: 2

CAS Number: 155877-83-1

IUPAC Name: 4-(7,8,9,10-Tetrahydro-5,7,7,10,10-pentamethyl-5H-benzo[e]naphtho[2,3-b][1,4]diazepin-13-yl)benzoic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

 $C_{29}H_{30}N_2O_2$ **Batch Molecular Formula: Batch Molecular Weight:** 438.56

Physical Appearance: Orange solid

DMSO to 100 mM Solubility: Store at +4°C

Batch Molecular Structure:

2. ANALYTICAL DATA

Storage:

TLC: $R_f = 0.1$ (Ethyl acetate:Petroleum ether [9:1])

HPLC: Shows 97.2% purity

¹H NMR: Consistent with structure Consistent with structure Mass Spectrum:

Microanalysis: Carbon Hydrogen Nitrogen

> Theoretical 79.42 6.89 6.39 Found 79.41 6.89 6.43



Product Information

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Description:

LE 135 is a retinoic acid antagonist; displays moderate selectivity for RAR β over RAR α (K_i values are 0.22 and 1.4 μ M respectively). Highly selective over RAR γ and RXR α . Inhibits human HL-60 leukemia cell differentiation induced by Am80 (IC $_{50}$ = 150 nM).

Physical and Chemical Properties:

Batch Molecular Formula: $C_{29}H_{30}N_2O_2$ Batch Molecular Weight: 438.56 Physical Appearance: Orange solid

Minimum Purity: ≥97%

Batch Molecular Structure:

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Li et al (1999) Identification of a novel class of retinoic acid receptor β-selective retinoid antagonists and their inhibitory effects on AP-1 activity and retinoic acid-induced apoptosis in human breast cancer cells. J.Biol.Chem. **274** 15360. PMID: 10336422.

Umemiya et al (1997) Regulation of retinoidal actions by diazepinylbenzoic acids. Retinoid synergists which activate the RXR-RAR heterodimers. J.Med.Chem. **40** 4222. PMID: 9435893.

Eyrolles et al (1994) Retinobenzoic acids. 6. Retinoid antagonists with heterocyclic ring. J.Med.Chem. 37 1508. PMID: 8182710.