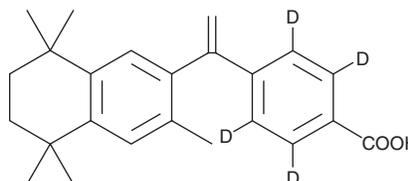


PRODUCT INFORMATION



Bexarotene-d₄ Item No. 22610

CAS Registry No.: 2182068-00-2
Formal Name: 4-[1-(5,6,7,8-tetrahydro-3,5,5,8,8-pentamethyl-2-naphthalenyl)ethenyl]-benzoic acid-d₄
MF: C₂₄H₂₄D₄O₂
FW: 352.5
Chemical Purity: ≥98% (Bexarotene)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
UV/Vis.: λ_{max}: 260 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

Bexarotene-d₄ is intended for use as an internal standard for the quantification of bexarotene (Item No. 11571) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Bexarotene-d₄ is supplied as a crystalline solid. A stock solution may be made by dissolving the bexarotene-d₄ in the solvent of choice. Bexarotene-d₄ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of bexarotene-d₄ in these solvents is approximately 0.5, 10, and 20 mg/ml, respectively.

Description

Bexarotene is a high-affinity ligand for retinoid X receptors (RXRs) (EC₅₀s = 28, 25, and 20 nM for RXRa, β, and γ, respectively).¹ It inhibits cell cycle progression, induces apoptosis, prevents or overcomes multidrug resistance through multidrug resistance protein 1 (MDR1), and blocks angiogenesis and metastasis, making it a promising chemopreventive agent against cancer.^{2,3} Bexarotene also, through RXR activation, stimulates clearance of soluble β-amyloid, reduces plaque area, and reverses deficits related to Alzheimer's disease in mice.⁴

References

- Boehm, M.F., Zhang, L., Zhi, L., *et al.* Design and synthesis of potent retinoid X receptor selective ligands that induce apoptosis in leukemia cells. *J. Med. Chem.* **38(16)**, 3146-3155 (1995).
- Bischoff, E.D., Gottardis, M.M., Moon, T.E., *et al.* Beyond tamoxifen: The retinoid X receptor-selective ligand LGD1069 (TARGRETIN) causes complete regression of mammary carcinoma. *Cancer Res.* **58(3)**, 479-484 (1998).
- Qu, L. and Tang, X. Bexarotene: A promising anticancer agent. *Cancer Chemother. Pharmacol.* **65(2)**, 201-205 (2010).
- Cramer, P.E., Cirrito, J.R., Wesson, D.W., *et al.* ApoE-directed therapeutics rapidly clear β-amyloid and reverse deficits in AD mouse models. *Science* **335(6075)**, 1503-1506 (2012).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM