

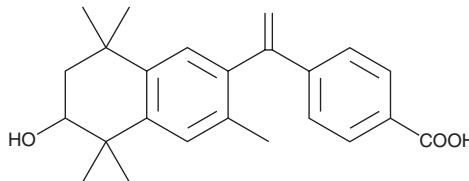
# PRODUCT INFORMATION



## 6-hydroxy Bexarotene

Item No. 22098

CAS Registry No.: 368451-07-4  
Formal Name: 4-[1-(5,6,7,8-tetrahydro-6-hydroxy-3,5,5,8,8-pentamethyl-2-naphthalenyl)ethenyl]-benzoic acid  
MF:  $C_{24}H_{28}O_3$   
FW: 364.5  
Purity:  $\geq 98\%$   
UV/Vis.:  $\lambda_{max}$ : 204, 264 nm  
Supplied as: A crystalline solid  
Storage:  $-20^{\circ}C$   
Stability:  $\geq 4$  years



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

### Laboratory Procedures

6-hydroxy Bexarotene is supplied as a crystalline solid. A stock solution may be made by dissolving the 6-hydroxy bexarotene in the solvent of choice, which should be purged with an inert gas. 6-hydroxy Bexarotene is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 6-hydroxy bexarotene in these solvents is approximately 0.5, 10, and 20 mg/ml, respectively.

6-hydroxy Bexarotene is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 6-hydroxy bexarotene should first be dissolved in DMF and then diluted with the aqueous buffer of choice. 6-hydroxy Bexarotene 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

6-hydroxy Bexarotene is an oxidative metabolite of bexarotene (Item No. 11571), a high-affinity ligand for retinoid X receptors (RXRs).<sup>1</sup> 6-hydroxy Bexarotene binds to RXR $\alpha$ , RXR $\beta$ , and RXR $\gamma$  as well as retinoic acid receptor  $\alpha$  (RAR $\alpha$ ;  $K_d$ s = 3.46, 4.21, 4.83, and 8.17  $\mu$ M, respectively). It selectively activates RXR $\alpha$ , RXR $\beta$ , and RXR $\gamma$  over RAR $\alpha$ , RAR $\beta$ , and RAR $\gamma$  *in vitro* ( $EC_{50}$ s = 398, 356, 420, 4,414, 2,121, and 2,043 nM, respectively).

### Reference

1. Howell, S.R., Shirley, M.A., Grese, T.A., *et al.* Bexarotene metabolism in rat, dog, and human, synthesis of oxidative metabolites, and in vitro activity at retinoid receptors. *Drug Metab. Dispos.* **29**(7), 990-998 (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.

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