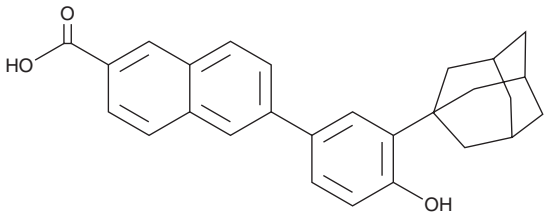
# PRODUCT INFORMATION

## CD437

*Item No. 71610*

**CAS Registry No.:** 125316-60-1
**Formal Name:** 6-(4-hydroxy-3-tricyclo[3.3.1.13,7]dec-1-ylphenyl)-2-naphthalenecarboxylic acid
**Synonym:** AHPN
**MF:** $C_{27}H_{26}O_3$
**FW:** 398.5
**Purity:** ≥95%
**UV/Vis.:** $\lambda_{max}$: 234, 274, 325 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

CD437 is supplied as a crystalline solid. A stock solution may be made by dissolving the CD437 in the solvent of choice, which should be purged with an inert gas. CD437 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of CD437 in these solvents is approximately 1, 16, and 10 mg/ml.

CD437 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CD437 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CD437 has a solubility of approximately 0.05 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

CD437 is the prototypical adamantyl arotinoid of the retinoid-related molecule family that acts as a selective agonist of retinoic acid receptor (RAR)γ (Kds = 6.5 µM, 2.5 µM, and 77 nM for RARα, β, and γ, respectively).[1,2] CD437 is cytotoxic to the acute myeloid leukemia cell line NB4 ($EC_{50}$ = 0.17 µM), inducing DNA damage by producing DNA double strand breaks.[3] CD437 also induces cell cycle arrest and apoptosis in various other cancer cells including melanoma, breast, non-small lung, and prostate cancer cells through RAR-dependent and -independent signaling pathways.[4,5]

### References


1. Pérez-Rodríguez, S., Ortiz, M.A., Pereira, R., *et al.* Highly twisted adamantyl arotinoids: Synthesis, antiproliferative effects and RXR transactivation profiles. *Eur. J. Med. Chem.* **44(6)**, 2434-2446 (2009).
2. Bernard, B.A., Bernardon, J.M., Delescluse, C., *et al.* Identification of synthetic retinoids with selectivity for human nuclear retinoic acid receptor γ. *Biochem. Biophys. Res. Commun.* **186(2)**, 977-983 (1992).
3. Valli, C., Paroni, G., Di Francesco, A.M., *et al.* Atypical retinoids ST1926 and CD437 are S-phase-specific agents causing DNA double-strand breaks: Significance for the cytotoxic and antiproliferative activity. *Mol. Cancer Ther.* **7(9)**, 2941-2954 (2008).
4. Fontana, J.A. and Rishi, A.K. Classical and novel retinoids: Their targets in cancer therapy. *Leukemia* **16(4)**, 463-472 (2002).
5. Jin, F., Liu, X., Zhou, Z., *et al.* Activation of nuclear factor-κB contributes to induction of death receptors and apoptosis by the synthetic retinoid CD437 in DU145 human prostate cancer cells. *Cancer Res.* **65(14)**, 6354-6363 (2005).





**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