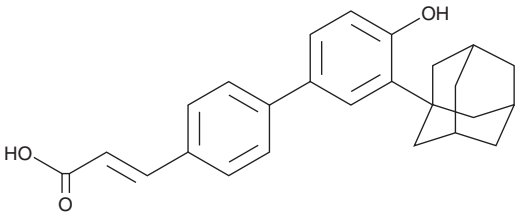
PRODUCT INFORMATION

Adarotene

Item No. 29807

CAS Registry No.:	496868-77-0
Formal Name:	(2E)-3-(4′-hydroxy-3′-tricyclo[3.3.1.1^{3,7}]dec-1-yl[1,1′-biphenyl]-4-yl)-2-propenoic acid
Synonym:	ST1926
MF:	$C_{25}H_{26}O_3$
FW:	374.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 238, 334 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

Adarotene is supplied as a crystalline solid. A stock solution may be made by dissolving the adarotene in the solvent of choice, which should be purged with an inert gas. Adarotene is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of adarotene in these solvents is approximately 1, 30, and 5 mg/ml, respectively.

Adarotene is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, adarotene should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Adarotene has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Adarotene is an atypical retinoid.[1] It does not induce RARα or RAR-mediated transcription in a luciferase assay. It inhibits proliferation of a variety of cancer cells, including mutant p53-containing DU145 prostate, A431 cervical, and Me665/2/21 melanoma cancer cells (IC_{50}s = 0.1, 0.25, and 0.25 µM, respectively) and wild-type p53-containing LNCaP prostate, H460 non-small cell lung, and HCT116 colon cancer cells (IC_{50}s = 0.12, 0.19, and 0.32 µM, respectively). Adarotene induces DNA damage in wild-type p53-containing IGROV-1 cells and apoptosis in IGROV-1 and DU145 cells. It reduces tumor burden and increases survival in a mouse model of chronic myeloid leukemia (CML) when administered at a dose of 15 mg/kg per day.[2]

References

1. Cincinelli, R., Dallavalle, S., Merlini, L., *et al.* A novel atypical retinoid endowed with proapoptotic and antitumor activity. *J. Med. Chem.* **46(6)**, 909-912 (2003).
2. Nasr, R.R., Hmadi, R.A., El-Eit, R.M., *et al.* ST1926, an orally active synthetic retinoid, induces apoptosis in chronic myeloid leukemia cells and prolongs survival in a murine model. *Int. J. Cancer* **137(3)**, 698-709 (2015).

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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