

Product Name: AM 580

Catalog No.: 0760

Batch No.: 5

CAS Number: 102121-60-8

IUPAC Name: 4-[(5,6,7,8-Tetrahydro-5,5,8,8-tetramethyl-2-naphthalenyl)carboxamido]benzoic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₂H₂₅NO₃·¼H₂O

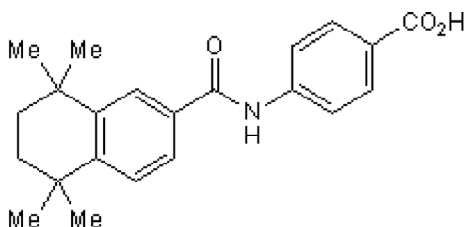
Batch Molecular Weight: 355.94

Physical Appearance: White solid

Solubility: DMSO to 100 mM
ethanol to 50 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon Hydrogen Nitrogen		
Theoretical	74.24	7.22	3.94
Found	73.88	7.3	3.89

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Description:

AM 580 is an analog of retinoic acid that acts as a selective RAR α agonist (EC₅₀ values are 0.3, 8.6 and 13 nM for RAR α , RAR β and RAR γ respectively). Significantly induces IL-4, IL-5 and IL-13 and inhibits IL-12 and IFN γ synthesis, and induces cell differentiation with over 7 times the activity of retinoic acid in vitro. AM 580 synthesized to Ancillary Material Grade also available.

Physical and Chemical Properties:

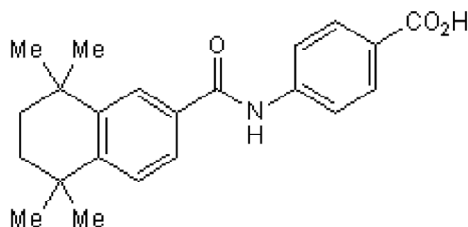
Batch Molecular Formula: C₂₂H₂₅NO₃· $\frac{1}{4}$ H₂O

Batch Molecular Weight: 355.94

Physical Appearance: White solid

Minimum Purity: \geq 98%

Batch Molecular Structure:



References:

Wang et al (2011) Rapid and efficient reprogramming of somatic cells to induced pluripotent stem cells by retinoic acid receptor gamma and liver receptor homolog 1. Proc.Natl.Acad.Sci.U.S.A. **108** 18283. PMID: 21990348.

Charton et al (2009) Novel non-carboxylic acid retinoids: 1,2,4-oxadiazol-5-one derivatives. Bioorg.Med.Chem.Lett. **19** 489. PMID: 19058965.

Dawson et al (2008) The retinoic acid receptor- α mediates human T-cell activation and Th2 cytokine and chemokine production. BMC Immunol. **9** 16. PMID: 18416830.

Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 50 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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.

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