

Product Name: AM 580

Catalog No.: 0760

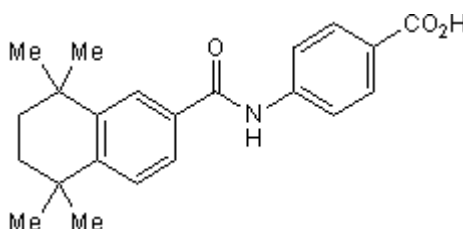
Batch No.: 3

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: C₂₂H₂₅NO₃·³/₄H₂O
Batch Molecular Weight: 364.95
Physical Appearance: White solid
Solubility: DMSO to 50 mM
ethanol to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.4% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	72.4	7.32	3.84
Found	72.16	7.51	3.81

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

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.

Physical and Chemical Properties:

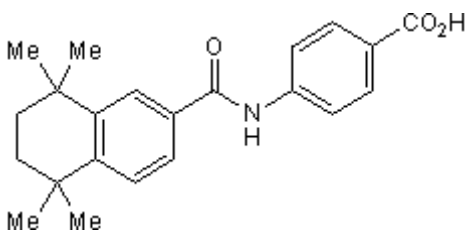
Batch Molecular Formula: C₂₂H₂₅NO₃· $\frac{3}{4}$ H₂O

Batch Molecular Weight: 364.95

Physical Appearance: White solid

Minimum Purity: >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.

Kagechika et al (1988) Retinobenzoic acids. 1. Structure-activity relationships of aromatic amides with retinoidal activity. *J.Med.Chem.* **31** 2182. PMID: 3184125.

Storage: Store at RT

Solubility & Usage Info:

DMSO to 50 mM
ethanol to 100 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. Our standard recommendations are:

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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bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956