

Product Name: Tazarotene

Catalog No.: 3997

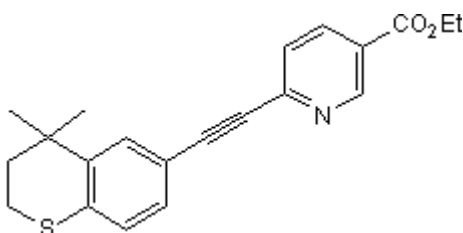
Batch No.: 1

CAS Number: 118292-40-3

IUPAC Name: 6-[2-(3,4-Dihydro-4,4-dimethyl-2H-1-benzothiopyran-6-yl)ethynyl]-3-pyridinecarboxylic acid ethyl ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₁H₂₁NO₂S
Batch Molecular Weight: 351.46
Physical Appearance: Pale yellow solid
Solubility: DMSO to 100 mM
ethanol to 50 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

Melting Point: Between 103 - 105°C
HPLC: Shows 99.8% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	71.77	6.02	3.98
Found	71.36	6.05	3.98

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

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Description:

Receptor-selective acetylenic retinoid; binds at retinoid acid receptors (RAR) β and γ . Topically used for the treatment of skin disorders, particularly psoriasis and acne. Implicated in the treatment of basal cell carcinomas; induces upregulation of Bax in vivo. Exhibits antiproliferative and proapoptotic activity. Upregulates TIGs (Tazarotene-induced genes), including the cell adhesion molecule TIG1 and the tumor-suppressor TIG3.

Physical and Chemical Properties:

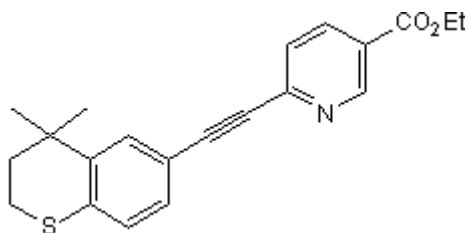
Batch Molecular Formula: C₂₁H₂₁NO₂S

Batch Molecular Weight: 351.46

Physical Appearance: Pale yellow solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Higuchi *et al* (2003) Induction of TIG3, a putative class II tumor suppressor gene, by retinoic acid in head and neck and lung carcinoma cells and its association with suppression of the transformed phenotype. *Oncogene* **22** 4627. PMID: 12879006.

Orlandi *et al* (2004) Evidence of increased apoptosis and reduced proliferation in basal cell carcinomas treated with Tazarotene. *J. Invest. Dermatol.* **122** 1037. PMID: 15102095.

Son *et al* (2009) Expression and mutation analysis of TIG1 (Tazarotene-induced gene 1) in human gastric cancer. *Oncol. Res.* **17** 571. PMID: 19806788.

Storage: Store at +4°C

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. 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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