

**Product Name:** EC 23

**Catalog No.:** 4011

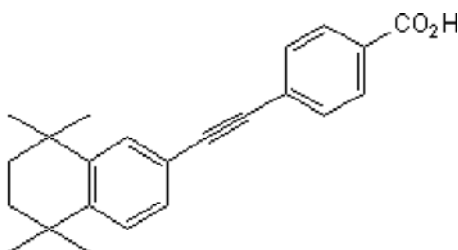
**Batch No.:** 3

CAS Number: 104561-41-3

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

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>23</sub>H<sub>24</sub>O<sub>2</sub>·¼H<sub>2</sub>O  
**Batch Molecular Weight:** 336.94  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
ethanol to 5 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 99.8% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon Hydrogen Nitrogen		
Theoretical	81.99	7.33	
Found	82.02	7.33	

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

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**Description:**

Photostable synthetic retinoid; analog of ATRA (Cat. No. 0695). Displays similar activity to ATRA when tested on the embryonal carcinoma stem cell model TERA2.cl.SP12. Potently induces neural differentiation in human pluripotent embryonic stem cells.

**Physical and Chemical Properties:**

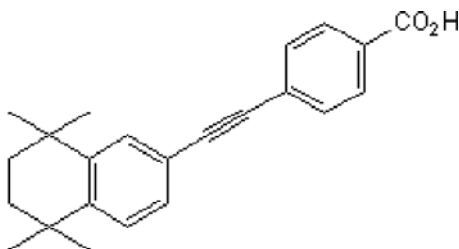
Batch Molecular Formula: C<sub>23</sub>H<sub>24</sub>O<sub>2</sub>·¼H<sub>2</sub>O

Batch Molecular Weight: 336.94

Physical Appearance: White solid

**Minimum Purity:** ≥99%

**Batch Molecular Structure:**



**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol to 5 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.

**Licensing Information:**

Sold under license from Reinnervate Limited, patent pending

**References:**

**Barnard *et al*** (2009) Synthetic retinoids: structure-activity relationships. *Chemistry* **15** 11430. PMID: 19821467.

**Maltman *et al*** (2009) Proteomic profiling of the stem cell response to retinoic acid and synthetic retinoid analogues: identification of major retinoid-inducible proteins. *Mol.Biosyst.* **5** 458. PMID: 19381361.

**Christie *et al*** (2008) Synthesis and evaluation of synthetic retinoid derivatives as inducers of stem cell differentiation. *Org.Biomol.Chem.* **6** 3497. PMID: 19082150.

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