TOCRIS
a bio-techne brand

Print Date: May 4th 2020

Certificate of Analysis

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Product Name: **AC 186** **Catalog No.: 5053** **Batch No.: 1**

CAS Number: 1421854-16-1

IUPAC Name: 4-[4,4-Difluoro-1-(2-fluorophenyl)cyclohexyl]phenol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{18}H_{17}F_3O$

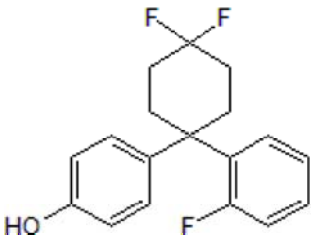
Batch Molecular Weight: 306.32

Physical Appearance: White solid

Solubility: DMSO to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.31 (Ethyl acetate:Petroleum ether [85:15])

HPLC: Shows 99.9% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	70.58	5.59	
Found	70.4	5.6	0.05

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

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Description:

Potent and selective ERβ agonist (EC_{50} values are 6 and 5000 nM for ERβ and ERα respectively). Exhibits gender selective neuroprotective effects in a male rat model of Parkinson's disease. Decreases Aβ levels in combination with ACP-105 in a rat model of Alzheimer's disease.

Physical and Chemical Properties:

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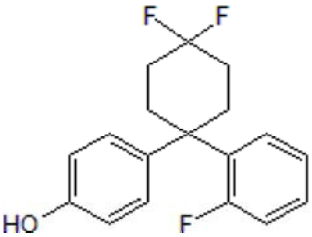
Batch Molecular Weight: 306.32

Physical Appearance: White solid

Minimum Purity: ≥99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO 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.

References:

George *et al* (2013) Nonsteroidal selective androgen receptor modulators and selective estrogen receptor β agonists moderate cognitive deficits and amyloid-β levels in a mouse model of Alzheimer's disease. ACS Chem.Neurosci. ***4*** 1537. PMID: 24020966.

McFarland *et al* (2013) AC-186, a selective nonsteroidal estrogen receptor β agonist, shows gender specific neuroprotection in a Parkinson's disease rat model. ACS Chem.Neurosci. ***4*** 1249. PMID: 23898966.

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