

Certificate of Analysis

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Product Name: J 147

Catalog No.: 5081

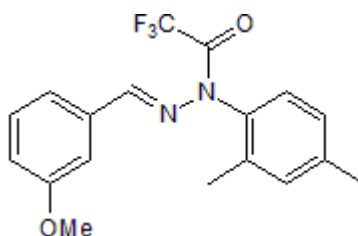
Batch No.: 1

CAS Number: 1146963-51-0

IUPAC Name: 2,2,2-Trifluoroacetic acid 1-(2,4-Dimethylphenyl)-2-[(3-methoxyphenyl)methylene]hydrazide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈H₁₇F₃N₂O₂
Batch Molecular Weight: 350.33
Physical Appearance: White solid
Solubility: DMSO to 100 mM
ethanol to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.7 (Ethyl acetate:Petroleum ether [85:15])
HPLC: Shows 99.3% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	61.71	4.89	8
Found	61.68	4.87	7.92

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

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Description:

Potent neuroprotective and neurotrophic compound. Protects against neurotoxicity in cortical neurons in vitro (EC_{50} = 25 - 200 nM). Reduces soluble A β 40 and A β 42 levels and increases BDNF levels in the hippocampus in vivo. Enhances memory in wild type rats. Prevents memory deficits and rescues cognitive deficits in young and aged transgenic Alzheimer's disease mice, respectively. Orally active.

Physical and Chemical Properties:

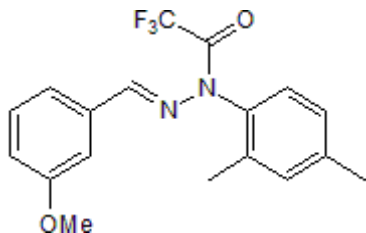
Batch Molecular Formula: C₁₈H₁₇F₃N₂O₂

Batch Molecular Weight: 350.33

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 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.

References:

Chen et al (2011) A novel neurotrophic drug for cognitive enhancement and Alzheimer's disease. PLoS One **6** e27865. PMID: 22194796.

Prior et al (2013) The neurotrophic compound J147 reverses cognitive impairment in aged Alzheimer's disease mice. Alzheimer's Res. Ther. **5** 25. PMID: 23673233.

Chiruta et al (2013) Metabolism of a potent neuroprotective hydrazide. Bioorg. Med. Chem. **21** 2733. PMID: 23582448.

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