

Product Name: DMP 543

Catalog No.: 2330

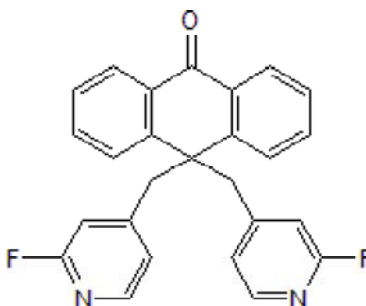
Batch No.: 1

CAS Number: 160588-45-4

IUPAC Name: 10,10-bis[(2-Fluoro-4-pyridinyl)methyl]-9(10H)-anthracenone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₆H₁₈F₂N₂O
Batch Molecular Weight: 412.44
Physical Appearance: Pale yellow solid
Solubility: DMSO to 100 mM
 ethanol to 50 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.43 (Ethyl acetate:Petroleum ether [1:1])
HPLC: Shows >99.3% purity
¹H NMR: Consistent with structure
 Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	75.72	4.4	6.79
Found	75.79	4.28	6.73

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

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Description:

Acetylcholine release stimulator. Potently enhances K⁺-stimulated [³H]-ACh release from rat hippocampal slices (EC₅₀ = 700 nM), and increases release of dopamine and glutamate (EC₅₀ values are 0.25 and 0.22 μM, respectively). Orally active in vivo; increases ACh levels in rats (with a minimum effective dose of 1 mg/kg) and exerts a long duration of action. More potent than linopirdine (Cat. No. 1999) both in vitro and in vivo. Also K⁺ channel blocker.

Physical and Chemical Properties:

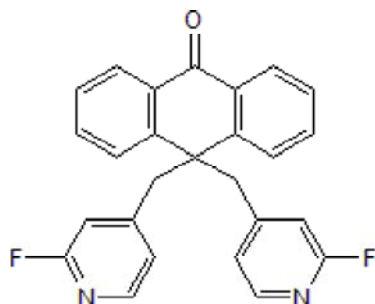
Batch Molecular Formula: C₂₆H₁₈F₂N₂O

Batch Molecular Weight: 412.44

Physical Appearance: Pale yellow solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Earl et al (1998) 2-Fluoro-4-pyridinylmethyl analogues of linopirdine as orally active acetylcholine release-enhancing agents with good efficacy and duration of action. *J.Med.Chem.* **41** 4615. PMID: 9804701.

Zaczek et al (1998) Two new potent neurotransmitter release enhancers, 10,10-Bis(4-pyridinylmethyl)-9(10H)-anthracenone and 10,10-Bis(2-fluoro-4-pyridinylmethyl)-9(10H)-anthracenone: comparison to linopirdine. *J.Pharmacol.Exp.Ther.* **285** 724. PMID: 9580619.

Storage: Store at RT

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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