

Product Name: TP 003

Catalog No.: 4414

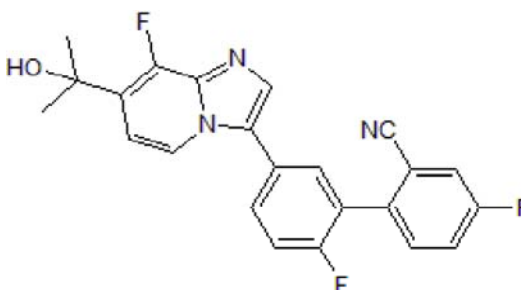
Batch No.: 2

CAS Number: 628690-75-5

IUPAC Name: 2',4-Difluoro-5'-[8-fluoro-7-(1-hydroxy-1-methylethyl)imidazo[1,2-a]pyridin-3-yl]-[1,1'-biphenyl]-2-carbonitrile

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₃H₁₆F₃N₃O
Batch Molecular Weight: 407.39
Physical Appearance: Off White solid
Solubility: DMSO to 100 mM
ethanol to 50 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.4 (Dichloromethane:Methanol:Ammonia soln. [97.5:2.5])
HPLC: Shows 98% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	67.81	3.96	10.31
Found	67.66	3.93	10.14

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

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Description:

GABA_A receptor partial agonist that demonstrates affinity for the benzodiazepine site. Potentiates GABA_A α3 response with high efficacy. Produces anxiolytic-like effects in rodent elevated plus maze via action at GABA_A α2 subtype receptors. Also evokes GABA_A α1 mediated sedation and GABA_A α3 mediated muscle relaxation in mice.

Physical and Chemical Properties:

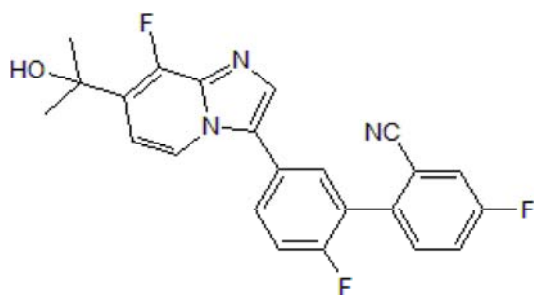
Batch Molecular Formula: C₂₃H₁₆F₃N₃O

Batch Molecular Weight: 407.39

Physical Appearance: Off White solid

Minimum Purity: >98%

Batch Molecular Structure:



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.

References:

Neumann et al (2018) TP003 is a non-selective benzodiazepine site agonist that induces anxiolysis via α2GABA_A receptors. *Neuropharmacology* **143** 71. PMID: 30240781 .

Fischer et al (2011) Contribution of GABA(A) receptors containing α3 subunits to the therapeutic-related and side effects of benzodiazepine-type drugs in monkeys. *Psychopharmacology (Berl.)* **215** 311. PMID: 21190016.

Dias et al (2005) Evidence for a significant role of α3-containing GABA_A receptors in mediating the anxiolytic effects of benzodiazepines. *J.Neurosci.* **25** 10682. PMID: 16291941.

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