

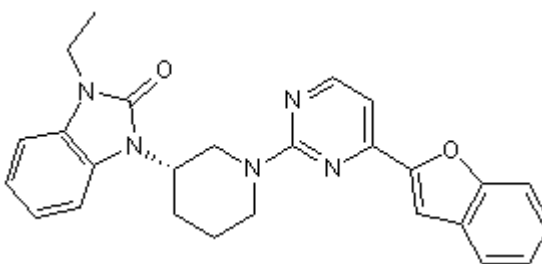
Certificate of Analysis

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Product Name: TC-F 2 **Catalog No.:** 4355 **Batch No.:** 1
CAS Number: 1304778-15-1
IUPAC Name: 1-[(3S)-1-[4-(2-Benzofuranyl)-2-pyrimidinyl]-3-piperidinyl]-3-ethyl-1,3-dihydro-2H-benzimidazol-2-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₆H₂₅N₅O₂
Batch Molecular Weight: 439.51
Physical Appearance: White solid
Solubility: DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.4 (Ethyl acetate:Petroleum ether [1:3])
HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = -29.8 (Concentration = .84, Solvent = Ethanol)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	71.05	5.73	15.93
Found	71.8	5.8	15.98

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

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Description:

Potent, reversible inhibitor of fatty acid amide hydrolase (FAAH) (IC₅₀ values are 28 and 100 nM for human and rat FAAH respectively). Noncovalent inhibitor; displays selectivity for FAAH over cannabinoid-related targets (IC₅₀ > 20 μM for CB₁, CB₂ and TRPV1). Active in vivo.

Physical and Chemical Properties:

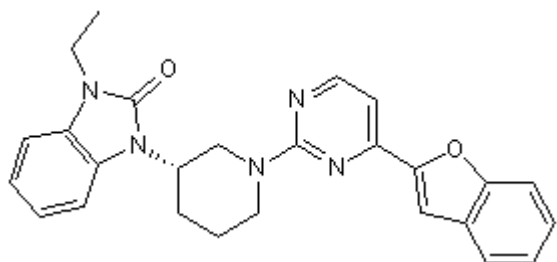
Batch Molecular Formula: C₂₆H₂₅N₅O₂

Batch Molecular Weight: 439.51

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:

Min et al (2011) Discovery and molecular basis of potent noncovalent inhibitors of fatty acid amide hydrolase (FAAH). *Proc.Natl.Acad.Sci.U.S.A.* **108** 7379. PMID: 21502526.

Gustin et al (2011) Identification of potent, noncovalent fatty acid amide hydrolase (FAAH) inhibitors. *Bioorg.Med.Chem.Lett.* **21** 2492. PMID: 21392988.

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