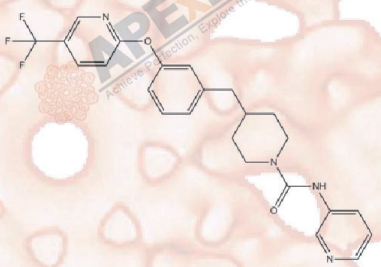
Product Data Sheet

PF-3845



Cat. No.:	A4374
CAS No.:	1196109-52-0
Formula:	C24H23F3N4O2
M.Wt:	456.46
Synonyms:	
Target:	Metabolism
Pathway:	FAAH
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

Soluble in DMSO

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.1908 mL	10.9539 mL	21.9077 mL
5 mM	0.4382 mL	2.1908 mL	4.3815 mL
10 mM	0.2191 mL	1.0954 mL	2.1908 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	FAAH ihibitor,highly potent and selective
IC_{50} & Target	0.23 μM (Ki) (FAAH)

In Vitro

Cell Viability Assay

Preparation method：	

In Vivo

Animal experiment

Animal models:	Male C57BL/6 mice with TBI-induced deficits, CFA rat model with inflammatory pain
Dosage form:	Intraperitoneal injection, 30 min after TBI, and then once daily for 3 or 14 days; oral administration, 1–30 mg/kg;

Applications:	Treatment with PF3845 (5 mg/kg, i.p.) completely restored the ability of TBI mice to successfully alternate arms during maze exploration. PF3845 (5 mg/kg, 10 mg/kg, i.p.) significantly attenuated TBI-induced anxiogenic behavior. Treatment with PF3845 (5 mg/kg, 10 mg/kg, i.p.) significantly reduced TBI-induced deficits in fine motor movement. In a rat model of inflammatory pain, PF-3845 (1–30 mg/kg, oral administration) caused a dose-dependent inhibition of mechanical allodynia. In FAAH (-/-) mice and wild-type mice, treatment with PF-3845 (1–10 mg/kg i.p.) induced an anti-allodynic phenotype. PF-3845 (0.1–10 μg intraplantar) increased AEA levels in the brain and spinal cord. Intraplantar PF-3845 produced a partial reduction in allodynia.
Preparation method:	The solubility of this compound in DMSO is > 10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Daneva Z, Dempsey SK, et al. "Diuretic, Natriuretic, and Vasodepressor Activity of a Lipid Fraction Enhanced in Medium of Cultured Mouse Medullary Interstitial Cells by a Selective Fatty Acid Amide Hydrolase Inhibitor." J Pharmacol Exp Ther. 2019 Feb;368(2):187-198.PMID:30530623

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References

[1]. Tchantchou F, Tucker L B, Fu A H, et al. The fatty acid amide hydrolase inhibitor PF-3845 promotes neuronal survival, attenuates inflammation and improves functional recovery in mice with traumatic brain injury[J]. Neuropharmacology, 2014, 85: 427-439.

[2]. Ahn K, Johnson D S, Mileni M, et al. Discovery and characterization of a highly selective FAAH inhibitor that reduces inflammatory pain[J]. Chemistry & biology, 2009, 16(4): 411-420.

[3]. Booker L, Kinsey S G, Abdullah R A, et al. The fatty acid amide hydrolase (FAAH) inhibitor PF‐3845 acts in the nervous system to reverse LPS‐induced tactile allodynia in mice[J]. British journal of pharmacology, 2012, 165(8): 2485-2496.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt

of the product, follow the storage recommendations on the product data sheet.

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