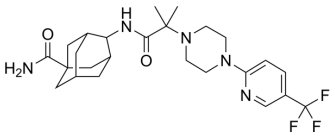
ABT-384

Cat. No.:	HY-111262
CAS No.:	868623-40-9
Molecular Formula:	$C_{25}H_{34}F_3N_5O_2$
Molecular Weight:	493.56
Target:	11β-HSD
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 31.25 mg/mL (63.32 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.0261 mL	10.1305 mL	20.2610 mL
	5 mM	0.4052 mL	2.0261 mL	4.0522 mL
	10 mM	0.2026 mL	1.0130 mL	2.0261 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (4.21 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.21 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.21 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

ABT-384 is a potent, selective 11-β-hydroxysteroid dehydrogenase type 1 (11β-HSD1) inhibitor. ABT-384 exhibits high affinity (K_i 0.1-2.7 nM) against rodent, monkey, and human 11β-HSD1. ABT-384 blocks regeneration of active cortisol. ABT-384 can be used for the research of Alzheimer's disease (AD)[1][2].

IC_{50} & Target

Ki: 0.1-2.7 nM (rodent, monkey, and human 11β-HSD1)[2]

REFERENCES

[1]. Katz DA, et al. Peripheral and central nervous system inhibition of 11β-hydroxysteroid dehydrogenase type 1 in man by the novel inhibitor ABT-384. Transl Psychiatry. 2013;3(8):e295. Published 2013 Aug 27.

[2]. Liu W, et al. Clinical Safety, Pharmacokinetics, and Pharmacodynamics of the 11β-Hydroxysteroid Dehydrogenase Type 1 Inhibitor ABT-384 in Healthy Volunteers and Elderly Adults. Clin Pharmacol Drug Dev. 2013;2(2):133-151.

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