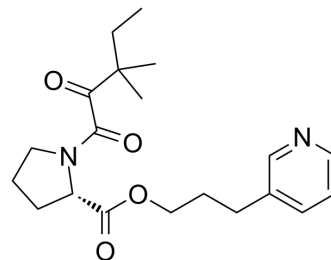


GPI-1046

Cat. No.:	HY-124619
CAS No.:	186452-09-5
Molecular Formula:	C ₂₀ H ₂₈ N ₂ O ₄
Molecular Weight:	360.45
Target:	FKBP; HIV
Pathway:	Apoptosis; Autophagy; Immunology/Inflammation; Anti-infection
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (277.43 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.7743 mL	13.8715 mL	27.7431 mL
	5 mM	0.5549 mL	2.7743 mL	5.5486 mL
	10 mM	0.2774 mL	1.3872 mL	2.7743 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 1 mg/mL (2.77 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 1 mg/mL (2.77 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 1 mg/mL (2.77 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

GPI-1046 is a immunophilin ligand without antibiotic action and attenuates ethanol intake in part through the upregulation of glutamate transporter 1 (GLT1) in PFC and NAc-core. GPI-1046 is an analog of FK506, which is an immunophilin ligand that has been shown neuroprotective effects in neurodegenerative disease models^[1]. GPI-1046 readily crosses the blood-brain barrier and promotes the regeneration of dopamine (DA) cells in the CNS in association with functional recovery in rodent models^[2]. GPI-1046 improves HIV-associated injury of peripheral nerves^[3].

IC₅₀ & Target

GLT1

REFERENCES

- [1]. Sari Y, et al. Neuroimmunophilin GPI-1046 reduces ethanol consumption in part through activation of GLT1 in alcohol-preferring rats. *Neuroscience*. 2012 Dec 27;227:327-35.
- [2]. Eberling JL, et al. The immunophilin ligand GPI-1046 does not have neuroregenerative effects in MPTP-treated monkeys. *Exp Neurol*. 2002 Dec;178(2):236-42.
- [3]. Scott Letendre, et al. Neurologic Complications of HIV Disease and Their Treatment. *Top HIV Med*. Apr-May 2007;15(2):32-9.
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Caution: Product has not been fully validated for medical applications. For research use only.

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