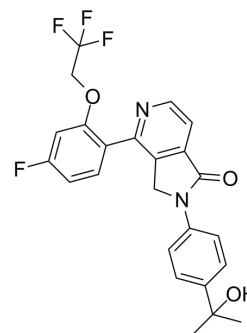


TP-060

Cat. No.:	HY-144266
CAS No.:	2601393-20-6
Molecular Formula:	C ₂₄ H ₂₀ F ₄ N ₂ O ₃
Molecular Weight:	460.42
Target:	Glucosylceramide Synthase (GCS)
Pathway:	Neuronal Signaling
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (217.19 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM		2.1719 mL	10.8596 mL	21.7193 mL
		5 mM		0.4344 mL	2.1719 mL	4.3439 mL
	10 mM		0.2172 mL	1.0860 mL	2.1719 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: ≥ 2.5 mg/mL (5.43 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	Glucosylceramide synthase-IN-1 (T-036) a potent, brain-penetrant and orally active glucosylceramide synthase (GCS) inhibitor with IC ₅₀ s of 31 nM and 51 nM for human GCS and mouse GCS, respectively. Glucosylceramide synthase-IN-1 can be used for Gaucher's disease research ^[1] .
IC₅₀ & Target	IC ₅₀ : 31 nM (human GCS) and 51 nM (mouse GCS) ^[1]
In Vitro	Glucosylceramide synthase-IN-1 (T-036) potently reduces the GCS product, catalyze glucosylceramide (GlcCer), in the fibroblasts with Gaucher's disease (EC ₅₀ of 7.6 nM) ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Glucosylceramide synthase-IN-1 (T-036) has good oral exposure (BA = 67%) and moderate brain penetration (K _{puu,brain} = 0.11). Administration of a single dose of Glucosylceramide synthase-IN-1 (T-036) reduces GlcCer in the plasma and cerebral cortex of wild-type mice, and administration of Glucosylceramide synthase-IN-1 (T-036) for 2 months significantly reduces

glucosylsphingosine (GlcSph) in the cerebral cortex of the Gaucher's disease mouse model^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Yuta Tanaka, et al. Discovery of Brain-Penetrant Glucosylceramide Synthase Inhibitors with a Novel Pharmacophore. J Med Chem. 2022 Mar 10;65(5):4270-4290

Caution: Product has not been fully validated for medical applications. For research use only.

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