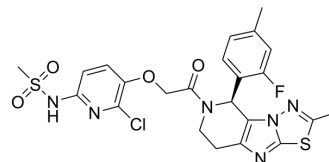


ACT-678689

Cat. No.:	HY-19572		
CAS No.:	1783256-96-1		
Molecular Formula:	C ₂₃ H ₂₂ ClFN ₆ O ₄ S ₂		
Molecular Weight:	565.04		
Target:	Tryptophan Hydroxylase		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (176.98 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.7698 mL	8.8489 mL	17.6979 mL
	5 mM	0.3540 mL	1.7698 mL	3.5396 mL
	10 mM	0.1770 mL	0.8849 mL	1.7698 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: ≥ 2.5 mg/mL (4.42 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.08 mg/mL (3.68 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

ACT-678689 (Compound Example 1.53.4) is a tryptophan hydroxylase (TPH) inhibitor with an IC₅₀ of 8 nM^[1].

IC₅₀ & Target

IC₅₀: 8 nM (TPH)^[1]

In Vitro

TPH comprises two isoforms: TPH2 is mainly expressed in neuronal cell types in the central nervous system (CNS), while TPH1 is mainly expressed in peripheral tissues, including the enterochromaffin cells (EC) in the gut, where it is responsible for synthesizing 5HT that is stored in circulating blood platelets^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Daniel Bur, et al. Tricyclic piperidine compounds. WO2015075023A1.

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

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