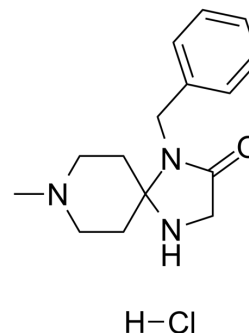


Simufilam hydrochloride

Cat. No.:	HY-139142B		
CAS No.:	2480226-07-9		
Molecular Formula:	C ₁₅ H ₂₂ ClN ₃ O		
Molecular Weight:	295.81		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description	Simufilam (PTI-125) (hydrochloride) is a low toxicity, orally active filamin A (FLNA) activator. Simufilam (hydrochloride) preferentially binds altered FLNA and restores its native conformation, restores receptor and synaptic activities, reduces its a7nAChR/TLR4 associations and downstream pathologies. Simufilam (hydrochloride) can be used for the research of Alzheimer's disease ^[1] .
IC₅₀ & Target	FLNA ^[1]
In Vitro	Simufilam (1 pM~1 nM) (hydrochloride) dose-dependently improves NMDA/glycine-induced Arc expression ^[1] . Simufilam (1 nM, 1 hour) (hydrochloride) largely restores filamin A to its native conformation and is effective in normalizing receptor activities in AD frontal cortices. Simufilam (hydrochloride) dose-dependently reduces Ab42-induced FLNA coupling to a7nAChR and TLR4 in both Ab42-treated control and AD hippocampus. Simufilam (hydrochloride) reduces Ab42's binding affinity for a7nAChR, thereby prevents Ab42's signaling and further accumulation on a7nAChRs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Simufilam (P.o.; 2 months) (hydrochloride) restores FLNA to its native conformation. Simufilam (22 mg/kg; p.o.) (hydrochloride) robustly reduces FLNAa7nAChR/TLR4 associations. Simufilam (hydrochloride) significantly improves spatial memory. Simufilam (hydrochloride) significantly improves working memory ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Wang HY, et al. PTI-125 binds and reverses an altered conformation of filamin A to reduce Alzheimer's disease pathogenesis. *Neurobiol Aging*. 2017;55:99-114.

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

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