

Product Data Sheet

Product Name: Simufilam

Cat. No.: GC63192

Chemical Properties

Cas. No. 1224591-33-6

Formula $C_{15}H_{21}N_3O$

M.Wt 259.35

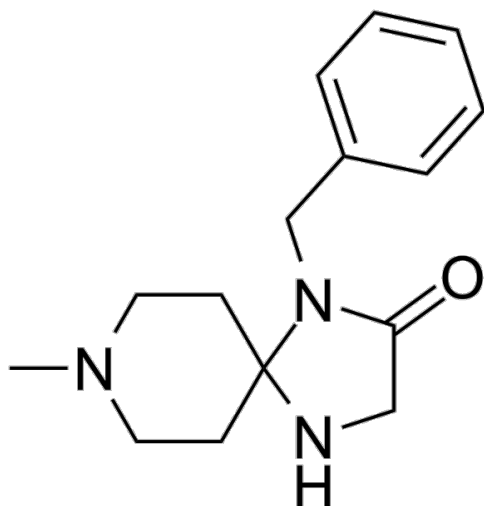
Solubility DMSO : 50 mg/mL (192.79 mM;
Need ultrasonic)

Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

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

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Simufilam (PTI-125) is a low toxicity, orally active filamin A (FLNA) activator. Simufilam preferentially binds altered FLNA and restores its native conformation, restores receptor and synaptic activities, reduces its $\alpha 7$ nAChR/TLR4 associations and downstream pathologies. Simufilam can be used for the research of Alzheimer's disease[1].

Simufilam (1 pM~1 nM) dose-dependently improves NMDA/glycine-induced Arc expression[1]. Simufilam (1 nM, 1 hour) largely restores filamin A to its native conformation and is effective in normalizing receptor activities in AD frontal cortices. Simufilam dose-dependently reduces Ab42-induced FLNA coupling to $\alpha 7$ nAChR and TLR4 in both Ab42-treated control and AD hippocampus. Simufilam reduces Ab42's binding affinity for $\alpha 7$ nAChR, thereby prevents Ab42's signaling and further accumulation on $\alpha 7$ nAChRs[1].

Simufilam (P.o.; 2 months) restores FLNA to its native conformation. Simufilam (22 mg/kg; p.o.) robustly reduces FLNA $\alpha 7$ nAChR/TLR4 associations. Simufilam significantly improves spatial memory. Simufilam significantly improves working memory[1].

[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.

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