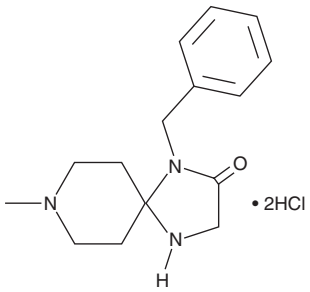
PRODUCT INFORMATION

PTI-125 (hydrochloride)

Item No. 41859



CAS Registry No.:	2480226-06-8
Formal Name:	8-methyl-1-(phenylmethyl)-1,4,8-triazaspiro[4.5] decan-2-one, dihydrochloride
MF:	$C_{15}H_{21}N_3O$ • 2HCl
FW:	332.3
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

PTI-125 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the PTI-125 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. PTI-125 (hydrochloride) is soluble (≥10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in ethanol.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of PTI-125 (hydrochloride) can be prepared by directly dissolving the solid in aqueous buffers. PTI-125 (hydrochloride) is soluble (≥10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

PTI-125 is a purported binding agent of filamin A, a cytoskeletal protein said to stabilize the interaction between amyloid-β (1-42) (Aβ42) and the α7 nicotinic acetylcholine receptor (nAChR).[1,2] PTI-125 reportedly binds to filamin A to reverse an aberrant conformational change induced by Aβ42, which prevents and reverses Aβ42-α7 nAChR binding and improves neuropathological outcomes in the 3xTg mouse model of Alzheimer's disease. However, the data regarding PTI-125 have prompted expressions of concern by the journals in which the data were published.

References

1. Expression of concern: Wang et al., "Reducing amyloid-related alzheimer's disease pathogenesis by a small molecule targeting filamin A". *J. Neurosci.* **42(3)**, 529 (2022).
2. Wang, H.Y., Lee, K.C., Pei, Z., *et al.* PTI-125 binds and reverses an altered conformation of filamin A to reduce Alzheimer's disease pathogenesis. *Neurobiol. Aging* **55**, 99-114 (2017).

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