bPiDDB

Cat. No.: HY-107674

CAS No.: 525596-66-1

Molecular Formula: $C_{24}H_{38}Br_2N_2$

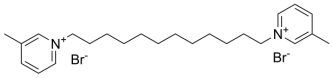
Molecular Weight: 514.38

Target: nAChR

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

Storage:

Pure form	-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 (194.41 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.9441 mL	9.7204 mL	19.4409 mL
5 mM	0.3888 mL	1.9441 mL	3.8882 mL
10 mM	0.1944 mL	0.9720 mL	1.9441 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

bPiDDB is a potent nAChR antagonist. bPiDDB potently (IC_{50}=2 nM) inhibits nicotine-evoked striatal dopamine (DA) release through an interaction with α6β2-containing nAChRs[1].

In Vivo

bPiDDB (peripherally administered) inhibits nicotine-evoked dopamine (DA) release in nucleus accumbens and decrease intravenous nicotine self-administration in rats[1].

bPiDDB is brain bioavailable following peripheral administration and is transported actively by the blood-brain barrier choline transporter into the central compartment[1].

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

REFERENCES

[1]. Smith AM, et al. Repeated nicotine administration robustly increases bPiDDB inhibitory potency at alpha6beta2-containing nicotinic receptors mediating nicotine-evoked dopamine release. Biochem Pharmacol. 2010 Aug 1;80(3):402-9.

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

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