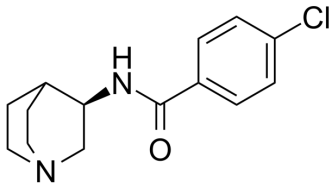
PNU-282987 free base

Cat. No.:	HY-12560
CAS No.:	711085-63-1
Molecular Formula:	$C_{14}H_{17}ClN_2O$
Molecular Weight:	264.75
Target:	nAChR; 5-HT Receptor
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling; GPCR/G Protein
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	PNU-282987 (free base) is a potent α7 nicotinic acetylcholine receptor (nAChR) agonist with an EC_{50} of 154 nM. PNU-282987 (free base) is also a functional antagonist of the 5-HT_3 receptor with an IC_{50} of 4541 nM. PNU-282987 (free base) can be used for the research of central and peripheral nervous systems[1].
IC_{50} & Target	5-HT_3 Receptor
In Vitro	PNU-282987 (free base) (Compound C7) displaces the R7 selective antagonist methyllycaconitine (MLA) from rat brain homogenates with a K_i of 27 nM[1]. PNU-282987 has α7 nAChR agonist activity with an EC_{50} of 154 nM[1]. PNU-282987 also has inhibition for the 5-HT_3 receptor with an IC_{50} value of 4541nM[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	PNU-282987 (free base) (Compound C7) (i.v.; 1, 3 mg/kg) leads to a reversal of the gating deficit[1]. PNU-282987 (30 μM) evokes currents in rat hippocampal neurons in a concentration-dependent and MLA blockable manner [1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Rats[1]
Dosage:	1, 3 mg/kg
Administration:	i.v.
Result:	Significantly reversed amphetamine-induced gating deficit.

CUSTOMER VALIDATION

- Cell Death Discov. 2022 Mar 30;8(1):141.
- Mol Med. 2022 Sep 4;28(1):104.
- Eur J Pharmacol. 2021 Mar 31;174067.

- J Pain Res. 2021 Feb 15;14:441-452.
- Biomed Res. 2017; Special Issue: ISSN 0970.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Bodnar AL, Discovery and structure-activity relationship of quinuclidine benzamides as agonists of alpha7 nicotinic acetylcholine receptors. J Med Chem. 2005 Feb 24;48(4):905-8.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA