

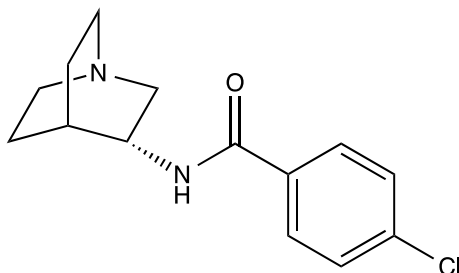
**Catalog # 10-4496**

**PNU 282987**

CAS# 123464-89-1

N-(3R)-1-Azabicyclo[2.2.2]oct-3-yl-4-chlorobenzamide

Lot # FBA4183



PNU 282987 is a selective  $\alpha 7$  nicotinic acetylcholine receptor (nAChR) agonist ( $K_i = 26$  nM).<sup>1</sup> The  $\alpha 7$  nAChR is a potential therapeutic target of cognitive deficits in diseases such as Alzheimers, Parkinsons, schizophrenia, and attention deficit disorders – agonism of this receptor with PNU 282987 has shown potential to ameliorate these deficits.<sup>2-5</sup>

- 1) Bodnar *et al.* (2005), *Discovery and structure-activity relationship of quinuclidine benzamides as agonists of  $\alpha 7$  nicotinic acetylcholine receptors*; J.Med.Chem. **48** 905
- 2) Stuckenholtz *et al.* (2013), *The  $\alpha 7$  nAChR agonist PNU-282987 reduces inflammation and MPTP-induced nigral dopaminergic cell loss in mice*; J.Parkinsons Dis. **3** 161
- 3) Vicens *et al.* (2013), *Motor and anxiety effects of PNU-282987, an alpha7 nicotinic receptor agonist, and stress in an animal model of Alzheimer's disease*; Curr.Alzheimer Res. **10** 516
- 4) Navarro *et al.* (2015), *Alpha7 nicotinic receptor activation protects against oxidative stress via heme-oxygenase I induction*; Biochem.Pharmacol. **97** 473
- 5) McLean *et al.* (2016), *Nicotinic  $\alpha 7$  and  $\alpha 4\beta 2$  agonists enhance the formation and retrieval of recognition memory: Potential mechanisms for cognitive performance enhancement in neurological and psychiatric disorders*; Behav.Brain Res. **302** 73

**PHYSICAL DATA**

Molecular Weight:	264.75
Molecular Formula:	C <sub>14</sub> H <sub>17</sub> ClN <sub>2</sub> O
Purity:	>98% by TLC
	NMR: Conforms
Solubility:	DMSO (25 mg/mL)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 2 months.

**Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.**