

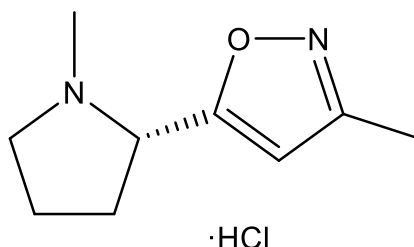
Catalog # 10-1470

ABT-418 HCl

CAS# 147388-83-8

3-Methyl-5-[(2S)-1-methyl-2-pyrrolidinyl]isoxazole hydrochloride

Lot # X105827



ABT-418 is an agonist at neuronal nicotinic acetylcholine receptors displaying the highest potency at $\alpha 4\beta 2$ and $\alpha 2\beta 2$ subtypes (EC_{50} = approximately 6 and 11 mM, respectively).¹ Displays anxiolytic activity in a rat model and was 6-fold more potent than diazepam.² Reduces distractibility in a primate model³ and may have relevance in attention deficit hyperactivity disorder⁴. Improves cognition in Alzheimer's disease patients.⁵

- 1) Papke *et al.* (1997), *Activation and inhibition of rat neuronal nicotinic receptors by ABT-418*; Br. J. Pharmacol., **120** 429
- 2) Brioni *et al.* (1994), *Anxiolytic-like effects of the novel cholinergic channel activator ABT-418*; J. Pharmacol. Exp. Therap., **271** 353
- 3) Prendergast *et al.* (1998), *Central nicotinic receptor agonists ABT-418, ABT089, and (-)-nicotine reduce distractibility in adult monkey*; Psychopharmacology (Berl), **136** 50
- 4) Beiderman and Spencer (2000), *Non-stimulant treatments for ADHD*; Eur. Child Adolesc. Psychiatry, **9 Suppl1** 151
- 5) Potter *et al.* (1999), *Acute effects of the selective cholinergic channel activator (nicotinic agonist) ABT-418 in Alzheimer's disease*; Psychopharmacology (Berl), **142** 334

PHYSICAL DATA

Molecular Weight: 202.68
Molecular Formula: C₉H₁₄N₂O · HCl
Purity: >98% by TLC
NMR: (Conforms)
Solubility: Water (15 mg/mL)
Physical Description: White solid
Storage and Stability: Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in water may be stored at -20°C for up to 3 months.

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