Product Name: AR-R 17779 hydrochloride  
Catalog No.: 3964  
Batch No.: 2

CAS Number: 178419-42-6  
IUPAC Name: (3S)-Spiro[1-azabicyclo[2.2.2]octane-3,5'-oxazolidine]-2'-one hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₉H₁₄N₂O₂·HCl·½H₂O  
Batch Molecular Weight: 227.69  
Physical Appearance: Off-white solid  
Solubility: DMSO to 50 mM  
Water to 100 mM  
Storage: Desiccate at RT

2. ANALYTICAL DATA

TLC: R_f = 0.1 (Chloroform:Methanol [2:1])

Chiral HPLC: Shows 99.3% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: [α]D = +62 (Concentration = 1, Solvent = Methanol)

Microanalysis:

<table>
<thead>
<tr>
<th></th>
<th>Carbon</th>
<th>Hydrogen</th>
<th>Nitrogen</th>
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Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
**Product Name:** AR-R 17779 hydrochloride  
**CAS Number:** 178419-42-6  
**IUPAC Name:** (3S)-Spiro[1-azabicyclo[2.2.2]octane-3,5'-oxazolidin-2'-one hydrochloride

**Description:**
Selective agonist of α7 nAChRs (Kᵢ values are 190 and 16000 nM for rat α7 and α4β2 receptors respectively). CNS penetrant after systemic administration.

**Physical and Chemical Properties:**
- **Batch Molecular Formula:** C₁₀H₁₄N₂O₂·HCl·½H₂O
- **Batch Molecular Weight:** 227.69
- **Physical Appearance:** Off-white solid

**Storage:** Desiccate at RT

**Solubility & Usage Info:**
- DMSO to 50 mM water to 100 mM
- **CAUTION - This product is hygroscopic and we recommend that it is desiccated upon arrival.**

**Stability and Solubility Advice:**
Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:
- **SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.
- **SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**
- **Mullen et al** (2000) (-)-spiro[1-azabicyclo[2.2.2]octane-3,5'-oxazolidin-2'-one], a conformationally restricted analogue of acetylcholine, is a highly selective full agonist at the α7 nicotinic acetylcholine receptor. J.Med.Chem. **43** 4045. PMID: 11063601.