

## Certificate of Analysis

**Product Name:** (R)-(+)-*m*-Nitrobiphenylene oxalate

**Catalog No.:** 2948

**Batch No.:** 1

**CAS Number:** 945618-97-3

**IUPAC Name:** (R)-2-[1-(3'-Nitrobiphenyl-2-yloxy)ethyl]-4,5-dihydro-1*H*-imidazole oxalate

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>17</sub>H<sub>17</sub>N<sub>3</sub>O<sub>3</sub>·C<sub>2</sub>H<sub>2</sub>O<sub>4</sub>

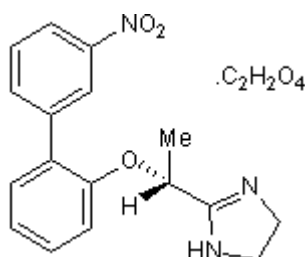
**Batch Molecular Weight:** 401.38

**Physical Appearance:** White solid

**Solubility:** DMSO to 75 mM  
ethanol to 5 mM

**Storage:** Store at +4°C

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**Melting Point:** Between 209 - 210°C

**HPLC:** Shows >99.5% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Optical Rotation:** [α]<sub>D</sub> = +24.6 (Concentration = 1, Solvent = Methanol)

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	56.86	4.77	10.47
Found	57.08	4.72	10.19

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**Description:**

$\alpha_{2C}$ -adrenoceptor agonist that potently inhibits cAMP accumulation in CHO cells ( $EC_{50}$  = 38 nM). Behaves as an antagonist at  $\alpha_{2A}$  and  $\alpha_{2B}$  adrenoceptors ( $pK_b$  values are 7.11 and 6.07 respectively).

**Physical and Chemical Properties:**

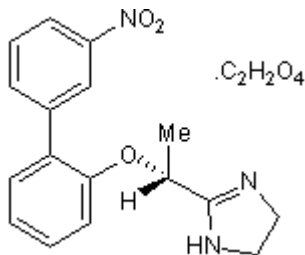
Batch Molecular Formula:  $C_{17}H_{17}N_3O_3 \cdot C_2H_2O_4$

Batch Molecular Weight: 401.38

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**References:**

**Crassous et al (2007)**  $\alpha_2$ -adrenoceptor profile modulation. 3. 1-(+)-*m*-Nitrobiphenylene, a new efficient  $\alpha_{2C}$ -subtype selective agonist. *J. Med. Chem.* **50** 3964. PMID: 17630725.

**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO to 75 mM

ethanol to 5 mM

**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.

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