

## Certificate of Analysis

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**Product Name:** A 61603 hydrobromide

**Catalog No.:** 1052

**Batch No.:** 2

CAS Number: 107756-30-9

IUPAC Name: *N*-[5-(4,5-Dihydro-1*H*-imidazol-2-yl)-2-hydroxy-5,6,7,8-tetrahydronaphthalen-1-yl]methanesulfonamide hydrobromide

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>14</sub>H<sub>19</sub>N<sub>3</sub>O<sub>3</sub>S.HBr.¼H<sub>2</sub>O

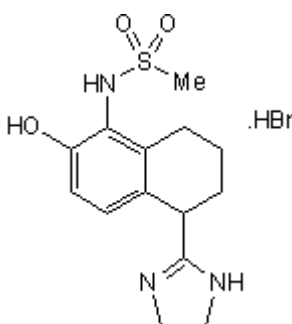
**Batch Molecular Weight:** 394.79

**Physical Appearance:** White solid

**Solubility:** water to 50 mM

**Storage:** Desiccate at +4°C

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.15 (Dichloromethane:Ethanol:Ammonia soln. [98:2])

**Melting Point:** Between 245 - 247°C

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

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	42.59	5.23	10.64
Found	42.75	5.12	10.45

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**Description:**

Potent  $\alpha$ -adrenoceptor agonist that is at least 35-fold more potent at  $\alpha_{1A}$  than at  $\alpha_{1B}$  or  $\alpha_{1D}$  sites. Induces dose response increases in spontaneous  $Ca^{2+}$  transients in rat ventricular myocytes in vitro ( $EC_{50}$  = 6.9 nmol/L). Also available as part of the  $\alpha_1$ -Adrenoceptor Tocriset™.

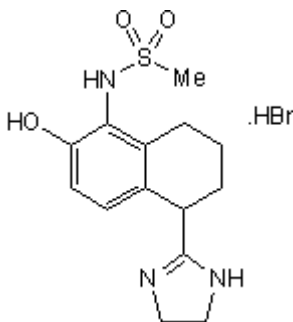
**Physical and Chemical Properties:**

Batch Molecular Formula:  $C_{14}H_{19}N_3O_3S \cdot HBr \cdot \frac{1}{4}H_2O$

Batch Molecular Weight: 394.79

Physical Appearance: White solid

**Batch Molecular Structure:**



**Storage:** Desiccate at +4°C

**Solubility & Usage Info:**

water to 50 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.

**References:**

**Luo et al (2007)** Receptor subtype involved in  $\alpha_{1A}$ -adrenergic receptor-mediated  $Ca^{2+}$  signaling in cardiomyocytes. *Acta.Pharmacol.Sin.* **28** 968. PMID: 17588332.

**Meyer et al (1996)** Synthesis and *in vitro* characterisation of *N*-[5-(4,5-dihydro-1*H*-imidazol-2-yl)-2-hydroxy-5,6,7,8-tetrahydronaphthalen-1-yl]methanesulfonamide and its enantiomers: a novel selective  $\alpha_{1A}$  receptor agonist. *J.Med.Chem.* **39** 4116. PMID: 8831777.

**Knepper et al (1995)** A-61603, a potent  $\alpha_1$ -adrenergic receptor agonist, selective for the  $\alpha_{1A}$  receptor subtype. *J.Pharmacol.Exp.Ther.* **274** 97. PMID: 7616455.

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**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel: +1 612 379 2956