

## Certificate of Analysis

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**Product Name:** IEM 1754 dihydrobromide

**Catalog No.:** 4199

**Batch No.:** 1

**CAS Number:** 162831-31-4

**IUPAC Name:** *N*-(Tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-ylmethyl)-1,5-pentanediamine dihydrobromide

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>16</sub>H<sub>30</sub>N<sub>2</sub>·2HBr

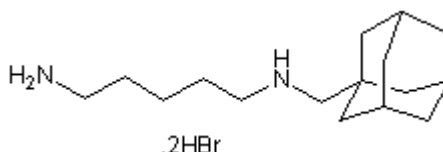
**Batch Molecular Weight:** 412.25

**Physical Appearance:** White solid

**Solubility:** water to 100 mM  
DMSO to 50 mM

**Storage:** Store at RT

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.14 (Dichloromethane:Methanol:Ammonia soln. [79:20:1])

**HPLC:** Shows 100% purity

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

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	46.62	7.82	6.8
Found	46.58	7.76	6.74

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

## Product Information

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### Description:

Voltage-dependent open-channel blocker of AMPA receptors. Selective between subtypes; blocks GluR2 subunit-lacking (Ca<sup>2+</sup>-permeable) receptors more potently than GluR2-containing receptors. Also potently blocks NMDA receptor channels. Less sensitive than IEM 1460 (Cat. No. 1460) at a holding potential between -40 and -80mV.

### Physical and Chemical Properties:

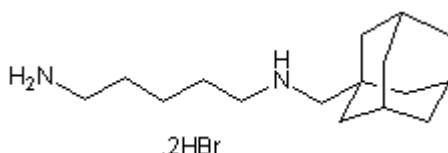
Batch Molecular Formula: C<sub>16</sub>H<sub>30</sub>N<sub>2</sub>·2HBr

Batch Molecular Weight: 412.25

Physical Appearance: White solid

**Minimum Purity:** >98%

### Batch Molecular Structure:



**Storage:** Store at RT

### Solubility & Usage Info:

water to 100 mM

DMSO to 50 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:

**Magazanik et al** (1997) Block of open channels of recombinant AMPA receptors and native AMPA/kainate receptors by adamantane derivatives. *J.Physiol.* **505** 655. PMID: 9457643.

**Tikhonov et al** (2000) Voltage-dependent block of native AMPA receptor channels by dicationic compounds. *Br.J.Pharmacol.* **129** 265. PMID: 10694232.

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