

## Certificate of Analysis

**Product Name:** MK 212 hydrochloride

**Catalog No.:** 0941

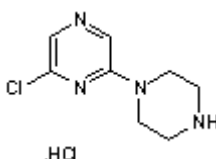
**Batch No.:** 3

CAS Number: 61655-58-1

IUPAC Name: 6-Chloro-2-(1-piperazinyl)pyrazine hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>8</sub>H<sub>11</sub>ClN<sub>4</sub>.HCl  
**Batch Molecular Weight:** 235.12  
**Physical Appearance:** White crystalline solid  
**Solubility:** water to 50 mM with gentle warming  
**Storage:** Store at RT  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:**  $R_f = 0.45$  (Dichloromethane:Methanol:Ammonia soln. [90:9:1])  
**Melting Point:** Greater than 250°C  
**HPLC:** Shows 100% purity  
<sup>1</sup>H NMR: Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

|             | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 40.87  | 5.14     | 23.82    |
| Found       | 40.85  | 5.2      | 24.15    |

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

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**Description:**

5-HT receptor agonist; displays selectivity for 5-HT<sub>2C</sub> over 5-HT<sub>2A</sub> (IC<sub>50</sub> values are 0.028 and 0.42 μM for human 5-HT<sub>2C</sub> and 5-HT<sub>2A</sub> receptors expressed in HEK293 cells respectively).

**Physical and Chemical Properties:**

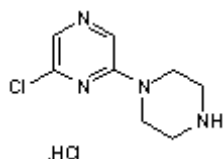
Batch Molecular Formula: C<sub>8</sub>H<sub>11</sub>ClN<sub>4</sub>.HCl

Batch Molecular Weight: 235.12

Physical Appearance: White crystalline solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

water to 50 mM with gentle warming

**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:**

**Conn and Sanders-Bush** (1987) Relative efficacies of piperazines at the phosphoinositide hydrolysis-linked serotonergic (5-HT<sub>2</sub> and 5-HT<sub>1C</sub>) receptors. *J.Pharmacol.Exp.Ther.* **242** 552. PMID: 3039120.

**Hemrick-Luecke and Fuller** (1996) Involvement of 5-HT<sub>2A</sub> receptors in the elevation of rat serum corticosterone concentration by quipazine and MK-212. *Eur.J.Pharmacol.* **311** 207. PMID: 8891601.

**Jensen et al** (2013) Design, synthesis, and pharmacological characterization of *N*- and *O*-substituted 5,6,7,8-tetrahydro-4*H*-isoxazolo [4,5-*d*]azepin-3-ol analogues: novel 5-HT<sub>2A</sub>/5-HT<sub>2C</sub> receptor agonists with pro-cognitive properties. *J.Med.Chem.* **56** 1211. PMID: 23301527.

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