TOCRIS bioscience

Print Date: Apr 28th 2015

# Certificate of Analysis

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**Product Name:** **Quinolinic acid** **Catalog No.: 0225** **Batch No.: 8**

CAS Number: 89-00-9 EC Number: 201-874-8

IUPAC Name: Pyridine-2,3-dicarboxylic acid

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** $C_7H_5NO_4$

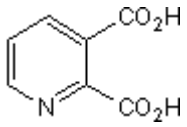
**Batch Molecular Weight:** 167.12

**Physical Appearance:** White solid

**Solubility:** 1eq. NaOH to 50 mM

**Storage:** Store at RT

**Batch Molecular Structure:**




## 2. ANALYTICAL DATA

**Melting Point:** Between 240 - 242°C

**$^1$H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

| | Carbon | Hydrogen | Nitrogen |
|---|---|---|---|
| Theoretical | 50.3 | 3.01 | 8.38 |
| Found | 50.56 | 2.94 | 8.31 |

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**Description:**
Endogenous NMDA agonist and transmitter candidate. May distinguish between NMDA receptor subtypes.

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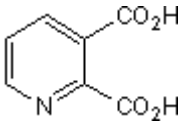


**Storage:** Store at RT

**Solubility & Usage Info:**
1eq. NaOH 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:**

**Stone and Perkins** (1981) Quinolinic acid: a potent endogenous excitant at amino acid receptors in the rat CNS. Eur.J.Pharmacol. ***72*** 411. PMID: 6268428.

**Stone and Burton** (1988) NMDA receptors and ligands in the vertebrate CNS. Prog.Neurobiol. ***30*** 333. PMID: 2830636.

**Monaghan and Beaton** (1991) Quinolinate differentiates between forebrain and cerebellar NMDA receptors. Eur.J.Pharmacol. ***194*** 123. PMID: 1676371.

**Prada de Carvalho** *et al* (1996) The endogenous agonist quinolinic acid and the non-endogenous homoquinolinic acid discriminate between NMDAR2 receptor subunits. Neurochem.Int. ***28*** 445. PMID: 8740453.