

**Product Name:** ML 213

**Catalog No.:** 4519

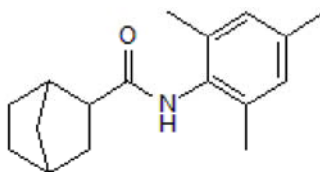
**Batch No.:** 1

CAS Number: 489402-47-3

IUPAC Name: *N*-(2,4,6-Trimethylphenyl)-bicyclo[2.2.1]heptane-2-carboxamide

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>17</sub>H<sub>23</sub>NO  
**Batch Molecular Weight:** 257.37  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 50 mM  
 ethanol to 50 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 100% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	79.34	9.01	5.44
Found	79.29	9.17	5.39

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

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**Description:**

Selective  $K_{V7.2}$  (KCNQ2) and  $K_{V7.4}$  (KCNQ4) channel opener ( $EC_{50}$  values are 230 and 510 nM for  $K_{V7.2}$  and  $K_{V7.4}$  respectively). Displays > 80-fold selectivity against  $K_{V7.1}$ ,  $K_{V7.3}$  and  $K_{V7.5}$  in a thallium-based fluorescence assay. Hyperpolarizes resting membrane potential in an in vitro spinal cord preparation.

**Physical and Chemical Properties:**

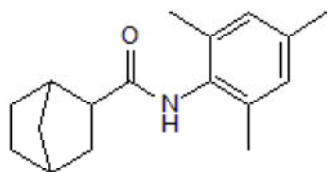
Batch Molecular Formula:  $C_{17}H_{23}NO$

Batch Molecular Weight: 257.37

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**References:**

**Vicente-Baz et al** (2016) Effects of novel subtype selective M-current activators on spinal reflexes *in vitro*: Comparison with retigabine. *Neuropharmacology* **109** 131. PMID: 27263036 .

**Yu et al** (2011) Discovery, synthesis, and structure activity relationship of a series of *N*-aryl-bicyclo[2.2.1]heptane-2-carboxamides: Characterization of ML213 as a novel KCNQ2 and KCNQ4 potassium channel opener. *ACS Chem.Neurosci.* **2** 572. PMID: 22125664.

**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO to 50 mM

ethanol 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.

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