

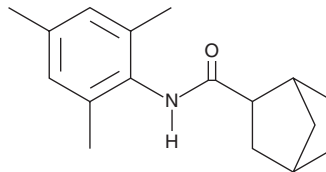
PRODUCT INFORMATION



ML-213

Item No. 15185

CAS Registry No.: 489402-47-3
Formal Name: N-(2,4,6-trimethylphenyl)-bicyclo[2.2.1]heptane-2-carboxamide
Synonym: CID-3111211
MF: C₁₇H₂₃NO
FW: 257.4
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

ML-213 is supplied as a crystalline solid. A stock solution may be made by dissolving the ML-213 in the solvent of choice, which should be purged with an inert gas. ML-213 is soluble in organic solvents such as ethanol and DMSO. The solubility of ML-213 in these solvents is approximately 5 mg/ml.

Description

The KCNQ (K_v7) family of voltage-gated potassium (K⁺) channels consists of five members, KCNQ1-KCNQ5. KCNQ1-KCNQ5 are critical for setting up the excitation threshold of action potentials. KCNQ1 is expressed mainly in cardiac tissue, peripheral epithelial cells, and smooth muscle cells, while KCNQ2-KCNQ5 are predominantly expressed in the peripheral and central nervous system, including hippocampal cells, cortical cells, and dorsal root ganglion. ML-213 is a selective activator of KCNQ2 (K_v7.2) and KCNQ4 (K_v7.4) channels (EC₅₀s = 230 and 510 nM for KCNQ2 and KCNQ4, respectively) that demonstrates > 80-fold selectivity against other related K⁺ channels.¹

Reference

1. Yu, H., Wu, M., Townsend, S.D., *et al.* 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(10)**, 572-577 (2011).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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