

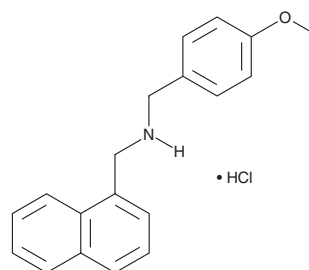
PRODUCT INFORMATION



ML-133 (hydrochloride)

Item No. 31232

CAS Registry No.: 1222781-70-5
Formal Name: N-[(4-methoxyphenyl)methyl]-1-naphthalenemethanamine, monohydrochloride
MF: C₁₉H₁₉NO • HCl
FW: 313.8
Purity: ≥98%
UV/Vis.: λ_{max}: 224 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

ML-133 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the ML-133 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. ML-133 (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of ML-133 (hydrochloride) in these solvents is approximately 1 mg/ml.

ML-133 (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ML-133 (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. ML-133 (hydrochloride) has a solubility of approximately 0.50 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

ML-133 is an inward-rectifier potassium channel 2 (K_{ir}2) inhibitor (IC₅₀s = 1.8, 2.8, 2.9, and 2.6 μM for K_{ir}2.1, K_{ir}2.2, K_{ir}2.3, and K_{ir}2.6, respectively).¹ It is selective for K_{ir}2 channels over K_{ir}1.1 and K_{ir}4.1 channels (IC₅₀s = 33 and 76 μM, respectively). ML-133 (10 and 30 nmol/animal) prevents the development of dynamic, but not punctate, mechanical allodynia in a mouse model of spared nerve injury.²

References

1. Wang, H.-R., Wu, M., Yu, H., *et al.* Selective inhibition of the Kir2 family of inward rectifier potassium channels by a small molecule probe: The discovery, SAR, and pharmacological characterization of ML133. *ACS Chem. Biol.* **6**(8), 845-856 (2011).
2. Shi, Y., Chen, Y. and Wang, Y. Kir2.1 channel regulation of glycinergic transmission selectively contributes to dynamic mechanical allodynia in a mouse model of spared nerve injury. *Neurosci Bull.* **35**(2), 301-314 (2019).

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.

WARRANTY AND LIMITATION OF REMEDY

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