

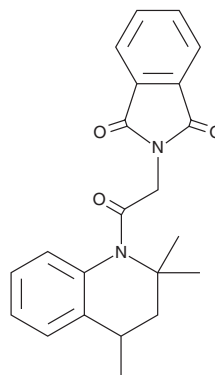
PRODUCT INFORMATION



ML-SA1

Item No. 29958

CAS Registry No.: 332382-54-4
Formal Name: 2-[2-(3,4-dihydro-2,2,4-trimethyl-1(2H)-quinoliny)-2-oxoethyl]-1H-isoindole-1,3(2H)-dione
Synonym: Mucolipin Synthetic Agonist 1
MF: C₂₂H₂₂N₂O₃
FW: 362.4
Purity: ≥98%
UV/Vis.: λ_{max}: 216 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-SA1 is supplied as a crystalline solid. A stock solution may be made by dissolving the ML-SA1 in the solvent of choice, which should be purged with an inert gas. ML-SA1 is soluble in the organic solvent dimethyl formamide (DMF) at a concentration of approximately 25 mg/ml.

ML-SA1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ML-SA1 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. ML-SA1 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

ML-SA1 is an agonist of transient receptor potential mucolipin 1 (TRPML1).¹ It induces cytosolic calcium increases in HEK293T cells expressing surface-expressed mutant TRPML1 channels when used at a concentration of 10 μM. ML-SA1 activates TRPML1-mediated current (I_{ML1}) in isolated vacuoles that were enlarged by vacuolin-1 (Item No. 20425) prior to isolation from HEK293 cells expressing TRPML1. It also activates whole-endolysosome I_{ML1} in primary murine macrophages.

Reference

1. Shen, D., Wang, X., Li, X., *et al.* Lipid storage disorders block lysosomal trafficking by inhibiting a TRP channel and lysosomal calcium release. *Nat. Commun.* **3**, 731 (2012).

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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