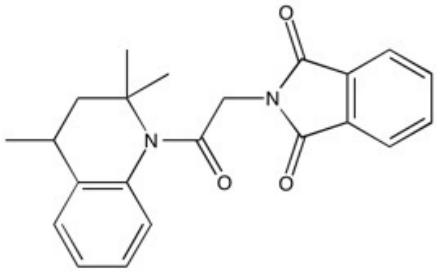
Tribioscience

ML-SA1, TRPML channel activator

Catalog	Unit
TBI1439-10MG	10 mg
TBI1439-50MG	50 mg

Product Details



Formal Name: 2-[2-(3,4-Dihydro-2,2,4-trimethyl-1(2H)-quinolinyl)-2-oxoethyl]-1H-isoindole-1,3(2H)-dione
Molecular Formula: $C_{22}H_{22}N_2O_3$
Formula Weight: 362.43
CAS Number: 332382-54-4
Purity: >98%
Formulation: powder
Solubility: Soluble in DMSO (up to 20 mg/ml with warming) or in Ethanol (up to 10 mg/ml).
Storage: RT
Stability: ≥ 1 year.

Applications

TRPML channel activator

Functions

TRPML 1,2 and 3 channel activator. Does not activate TRPM2, TRPV2, TRPV3, TRPC6 or TRPA1 channels. ML-SA1 robustly activates whole cell TRPML1-4A and whole-endolysosome TRPML1 and is comparable (10 μM) to the effect of the endogenous TRPML agonist, PI(3,5)P2 (1 μM). Thus it is a useful chemical tool for studying the functions of TRPMLs. It induces TRPML-mediated Ca2+ release from lysosomes which corrects trafficking defects and reduces cholesterol accumulation in Niemann-Pick type C macrophages. Reduces intralysosomal Ca2+ level rescuing abnormal lysosomal storage in FIG4-deficient cells.

Application Procedures

First dissolved in DMSO (up to 20 mg/ml with warming) or in Ethanol (up to 10 mg/ml), then diluted to aqueous buffer. Solutions in DMSO or Ethanol may be stored at -20°C for up to 3 months.

For research use only.

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