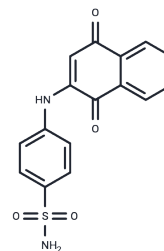


ML329

Chemical Properties

CAS No. :	19992-50-8
Formula:	C ₁₆ H ₁₂ N ₂ O ₄ S
Molecular Weight:	328.34
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	ML329 is a small molecule inhibitor of MITF, inhibiting TRPM-1 promoter activity.
Targets(IC50)	TRP/TRPV Channel
In vitro	ML329 effectively reduces the expression of various microphthalmia-associated transcription factor (MITF) target genes and impedes the growth of several cell lines reliant on MITF for proliferation. This compound potentially interacts with MITF or its regulatory elements directly or indirectly. Given MITF's critical role in regulating the cell cycle and pigmentation, ML329's interference with MITF presents a promising approach to elucidate MITF's specific functions in melanoma and to assess the inhibition of MITF's activity as a viable melanoma treatment strategy. Notably, ML329 selectively targets MITF-dependent cells and primary melanocytes without affecting the viability of A375 cells. It also diminishes the expression of key MITF target genes involved in pigmentation and cell cycle regulation, such as CDK2. Thus, ML329 serves as an invaluable research tool to explore MITF's contribution to the development of melanocyte lineage and the progression of melanoma.

Solubility Information

Solubility	DMSO: 10 mg/mL (30.46 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0456 mL	15.2281 mL	30.4562 mL
5 mM	0.6091 mL	3.0456 mL	6.0912 mL
10 mM	0.3046 mL	1.5228 mL	3.0456 mL
50 mM	0.0609 mL	0.3046 mL	0.6091 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Faloon PW, et al. A Small Molecule Inhibitor of the MITF Molecular Pathway. Probe Reports from the NIH Molecular Libraries Program [Internet]. Bethesda (MD): N/AtioN/Al Center for Biotechnology Information (US); 2010-2012 Dec 13.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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