

PRODUCT INFORMATION



CID-1067700

Item No. 15194

CAS Registry No.: 314042-01-8
Formal Name: 2-[[[(benzoylamino)thioxomethyl]amino]-4,7-dihydro-5,5-dimethyl-5H-thieno[2,3-c]pyran-3-carboxylic acid

Synonym: ML-282

MF: C₁₈H₁₈N₂O₄S₂

FW: 390.5

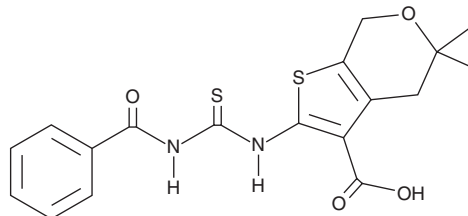
Purity: ≥95%

UV/Vis.: λ_{max}: 238, 291, 361 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

CID-1067700 is supplied as a crystalline solid. A stock solution may be made by dissolving the CID-1067700 in the solvent of choice, which should be purged with an inert gas. CID-1067700 is soluble in the organic solvent DMSO at a concentration of approximately 10 mg/ml.

Description

The Ras family of GTPases, including the Arf, Rho, Ras, and Rab GTPase subfamilies, regulates various cellular processes ranging from membrane trafficking to the control of cell proliferation. They regulate cell physiology by switching between active and inactive conformational states by binding either GTP or GDP. Alterations in GTPase function are a known hallmark of certain cancers and genetic diseases. CID-1067700 is one of the first identified competitive inhibitors of nucleotide binding by Ras-related GTPases.¹ It binds the nucleotide binding pocket of Rab7 with a K_i value of 13 nM, preventing BODIPY-linked GTP and GDP binding with EC₅₀ values of 11.2 and 21 nM, respectively.¹

Reference

1. Agola, J.O., Hong, L., Surviladze, Z., *et al.* A competitive nucleotide binding inhibitor: In vitro characterization of Rab7 GTPase inhibition. *ACS Chem. Biol.* **7(6)**, 1095-1108 (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.

WARRANTY AND LIMITATION OF REMEDY

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