

Product Data Sheet

Product Name: CMLD012612

Cat. No.: GC62698

Chemical Properties

Cas. No. 2368900-35-8

Formula $C_{31}H_{33}N_3O_7$

M.Wt 559.61

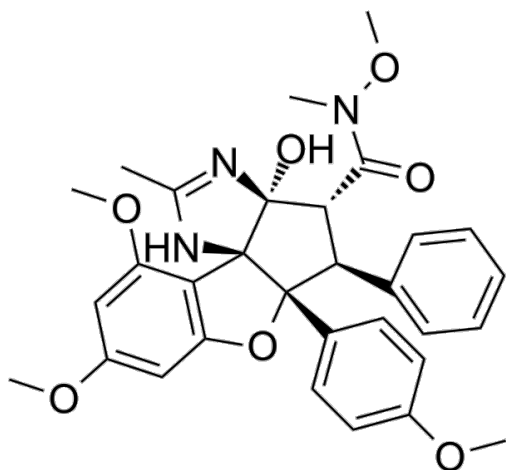
Solubility

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

CMLD012612 is an amidino-rocaglate containing a hydroxamate group and is a potent eukaryotic initiation factor 4A (eIF4A) inhibitor. CMLD012612 inhibits cell translation and is cytotoxic to NIH/3T3 cells with an IC₅₀ value of 2 nM. CMLD012612 inhibits eukaryotic translation initiation by modifying the behavior of the RNA helicase (eIF4A) and possesses potent anti-neoplastic activity[1].

The IC₅₀ of CMLD012612 toward NIH/3T3 cells is 2 nM. The primary mechanism of action of CMLD012612 is dependent on eIF4A1, since eIF4A1em1jp cells are at least 10-fold more resistant than parental NIH/3T3 cells. The sensitivity of eIF4A1em1jp cells to CMLD012612 observed at higher

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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concentrations may be due to the presence of wild-type eIF4A2 in the cells[1].

CMLD012612 (0.5 mg/kg; intraperitoneal injection; for 3 hours; female C57BL/6 mice) treatment effectively suppresses liver polysomes 3 hours after injection, indicating inhibitory activity toward protein synthesis[1]. When administered to mice bearing myr-Akt/Em-Myc lymphomas, CMLD012612 (0.2 mg/kg; intraperitoneal injection; daily; for 5 days; female C57BL/6 mice) treatment effectively synergizes with Doxorubicin, leading to complete tumor loss[1].

[1]. Chu J, et al. Amidino-Rocaglates: A Potent Class of eIF4A Inhibitors. Cell Chem Biol. 2019 Nov 21;26(11):1586-1593.

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