

Product Data Sheet

Product Name: APL-4098

Cat. No.: GC79066

Chemical Properties

Cas. No. 2752441-61-3

Formula $C_{17}H_{12}ClFN_6O_3S$ M.Wt 434.83

Solubility DMSO: 100 mg/mL (229.97 mM; Need ultrasonic) 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

APL-4098 is an orally active, selective, ATP-competitive GCN2 inhibitor with a K_i of 4.39 nM and a K_d of 2.9 nM. APL-4098 reduces the phosphorylation level of eIF2 α and the expression level of ATF4. APL-4098 impairs mitochondrial function and exerts cytotoxic effects on primary acute myeloid leukemia cells. APL-4098 is applicable to research related to acute myeloid leukemia [1].

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

Product Data Sheet

In Vivo, APL-4098 (0.5-5 mg/kg; p.o.; once daily; for 11 consecutive days) induces dose-dependent tumor growth inhibition in a subcutaneous AML CDX model^[1]. APL-4098 (15 mg/kg; p.o.; once daily; for 19 consecutive days) selectively eliminates the LSC-enriched CD34+/CD38- subset in patient-derived AML PDX models, while exerting minimal effects on the overall leukemia burden^[1].

In Vitro, APL-4098 (0.012-1 μ mol/L; 4 h) dose-dependently reduces eIF2 α phosphorylation and ATF4 protein expression in glutamine-deprived U2OS osteosarcoma cells^[1]. APL-4098 (100 nmol/L, 300 nmol/L, 1 μ mol/L) induces cell death ex vivo in primary patient-derived AML cells (cohort 2), including cytotoxic effects on the LSC-enriched CD34+/CD38- subpopulation in some samples^[1]. APL-4098 (250 nmol/L; 6, 18, 24 h) reduces mitochondrial membrane potential in MOLM-16 AML cells after 6, 18, and 24 hours of treatment^[1]. APL-4098 (up to 1 μ mol/L; 24 h) dose-dependently inhibits mitochondrial respiration (including basal and maximal OCR) in MOLM-16 AML cells after 24 hours of treatment^[1].

References:

[1]. Román-Trufero M, et al. A novel potent and selective GCN2 inhibitor, APL-4098, has anti-leukemic activity through dysregulation of mitochondrial function. Clin Cancer Res. Published online February 23, 2026.

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