

Product Data Sheet

Product Name: KTC1101

Cat. No.: GC73992

Chemical Properties

Cas. No. 2764833-47-6

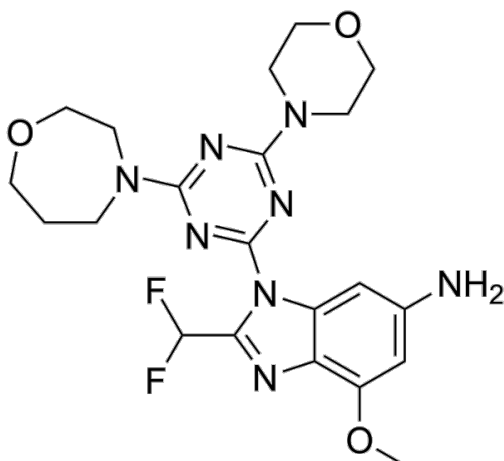
Formula $C_{21}H_{26}F_2N_8O_3$ M.Wt 476.48

Solubility DMSO : 33.33 mg/mL (69.95 mM; Storage -20°C
Need ultrasonic)

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

KTC1101 is an orally active pan-PI3K inhibitor. KTC1101 can inhibit the PI3K signaling pathway, reduce downstream AKT and mTOR phosphorylation, and reduces the expression of Ki67. The anti-tumor effect of KTC1101 has a dual mechanism of action: directly inhibiting tumor cell growth and dynamically enhancing immune response.

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

KTC1101 (0.1-50000 nM, 48 h) can dose-dependently induce cell cycle stagnation in G1 phase in all tested cell lines (PC3, TMD8, HSC2, HSC4, and CAL33 cells). KTC1101 has anti-proliferative activity, with the IC₅₀ ranging from 20 nM to 130 nM, but has no significant promotion of apoptosis[1]. KTC1101 (0.1-1000 nM, 1 h) exhibits significant inhibitory activity against all PI3K isoforms in the Adapta kinase assay. The IC₅₀ values of KTC1101 for PI3K α , PI3K β , PI3K δ and PI3K γ are 3.72 nM, 36.29 nM, 1.22 nM and 17.09 nM respectively[1]. KTC1101 (0-125 nM, 48 h) effectively inhibits the PI3K signaling pathway in WB experiments, reduces the phosphorylation of PI3K downstream effectors AKT and mTOR[1].

KTC1101 (0-125 mg/kg/day for 14 days, p.o.) can arrest tumor growth in mice with human tumor xenografts and show no signs of recurrence[1]. Pharmacokinetic Analysis in tumor xenograft mouse model[1]

References:

[1]. Peng X, et al. A novel pan-PI3K inhibitor KTC1101 synergizes with anti-PD-1 therapy by targeting tumor suppression and immune activation. Mol Cancer. 2024 Mar 14;23(1):54.

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