

Product Data Sheet

Product Name: YCH2823

Cat. No.: GC73774

Chemical Properties

Cas. No.

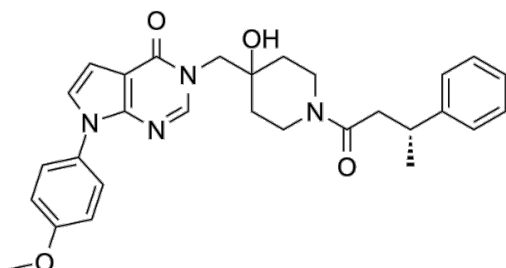
Formula C₂₉H₃₂N₄O₄ M.Wt 500.59

Solubility DMSO : 100 mg/mL (199.76 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

YCH2823 is an inhibitor of USP7 (IC₅₀ = 49.6 nM; K_d = 0.117 μM). YCH2823 shows significant efficacy in inhibiting TP53 wild-type and mutant tumors, with approximately 5-fold higher potency than FT671. YCH2823 induce apoptosis. YCH2823 synergistic effects with mTOR inhibitors.

YCH2823 interacts directly with USP7 with high affinity and effectively inhibits its enzymatic activity. Potentially low toxicity to IMR-90 cells[1]. YCH2823 (0-10 μM; 72 h or 5 days) demonstrates significant dose-dependent inhibition of cell proliferation across different cancer cell lines. High

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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sensitivity to TP53 wild-type, mutant. [1]. YCH2823 (0-1 μ M; 1-48 h) affects protein stability and cell cycle regulation. It leads to decrease in MDM2 protein levels within 1 h and elevation of p53 and p21 levels in LNCaP cells. In MM.1S cells, although p53 protein levels do not change significantly, p21 levels are independently higher, indicating a possible p53-independent pathway for p21 induction. In the TP53 mutant Capan-1 resulted in a significant decrease in Rad18 and DNMT1 proteins, along with an increase in p21 levels [1]. YCH2823 (0-1 μ M; 6-48 h) causes up-regulation of BCL6 protein and mRNA. It induces apoptosis by increasing the proportion of cells in G1 phase in CHP212 cells and IMR-32 cells. The manipulations of DNMT1, p53, and p21 has no impact on the YCH2823-induced upregulation of BCL6 [1]. YCH2823 with Rapamycin or Ridaforolimus results in a synergistic effect, where is more effective than either agent alone [1].

References:

[1]. Yong-Jun C et al. Identification of YCH2823 as a novel USP7 inhibitor for cancer therapy Elsevier Inc.. 2024 Apr 116071.

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