

Product Data Sheet

Product Name: T-1-PMPA

Cat. No.: GC73795

Chemical Properties

Cas. No. 1323883-62-0

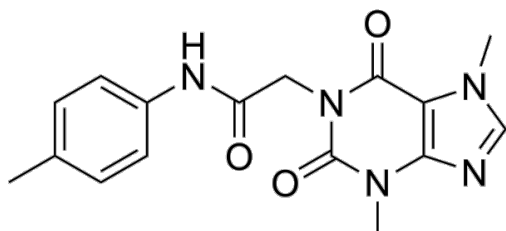
Formula $C_{16}H_{17}N_5O_3$ M.Wt 327.34

Solubility DMSO : 100 mg/mL (305.49 mM; Need ultrasonic) Storage -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

T-1-PMPA is a potent EGFR inhibitor with apoptotic properties. T-1-PMPA effectively inhibits

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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EGFRWT and EGFR790m, with IC50 values of 86 nM and 561.73 nM, respectively.

T-1-PMPA (0.312-10 μ M; 24 h) shows significant suppression of the proliferation of HepG2 and MCF7 malignant cell lines, with IC50 values of 3.51 μ M and 4.13 μ M, respectively[1]. In HepG2 cells, T-1-PMPA increases the proportion of cells in the early stage of apoptosis from 0.77 to 29.17%, the late stage of apoptosis from 0.17 to 8.81%, and the overall stage from 3.05 to 42.03%. Additionally, the percentage of necrotic cells increased to 4.05% compared to 2.21% in the control cells. The qRT-PCR analysis further supported the apoptotic effects by revealing significant increases in the levels of caspase-3 and caspase-9. T-1-PMPA controls the levels of TNF α and IL2 by 74 and 50%[1].

References:

[1]. Ibrahim H Eissa, et al. New Theobromine Apoptotic Analogue with Anticancer Potential Targeting the EGFR Protein: Computational and In Vitro Studies. ACS Omega. 2024 Mar 27;9(14):15861-15881.

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