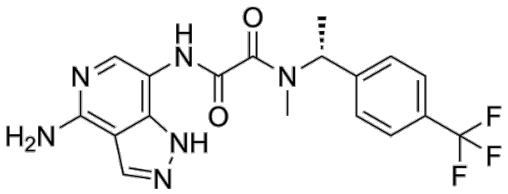
Product Data Sheet

Product Name: TNG456
Cat. No.: GC79160

Chemical Properties

Cas. No.	2962087-36-9		
Formula	$C_{18}H_{17}F_3N_6O_2$	M.Wt	406.36
Solubility		Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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

TNG456 is an orally active, CNS-penetrant, selective, MTA-cooperative PRMT5 inhibitor. TNG456 drives dose-dependent antitumor activity in mouse xenograft models. TNG456 can be used for the research of MTAP-null solid tumors, including gliomas, and CNS metastases [1] [2].

In Vivo, TNG456 (3-90 mg/kg; p.o.; BID; 7 days) drives dose-dependent, on-target antitumor activity in mouse U87MG MTAP-null glioblastoma xenografts[2]. TNG456 (30-90 mg/kg; p.o.; BID) exhibits potent, durable antitumor activity across diverse mouse MTAP-null patient-derived xenograft

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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models[2]. TNG456 (45-90 mg/kg; p.o.; BID) in combination with Abemaciclib delivers robust antitumor benefit in aggressive MTAP-null glioblastoma xenografts[2].

In Vitro, TNG456 (10 μM) exhibits high selectivity for PRMT5, with no significant activity against 40 other methyltransferases when tested at 10 μM[2]. TNG456 (7 days) inhibits the viability of HAP1 MTAP-null cells with a GI50 of 20 nM, and is 50-fold more selective for HAP1 MTAP-null cells than HAP1 MTAP WT cells[2]. TNG456 (7 days) inhibits the viability of MTAP-null LU99, LN18, HCT116, and HAP1 cells with GI50 values ranging from 0.015 μM to 0.054 μM, and shows an average 55-fold selectivity over their matched MTAP WT counterparts[2]. TNG456 exhibits favorable metabolic stability in human liver microsomes, with an intrinsic clearance of 13 μL/min/mg[2].

References:
[1]. Kimberly J. Briggs, et al. Abstract 462: TNG456 is a next-generation, brain-penetrant, MTA-cooperative PRMT5 inhibitor for the treatment of solid tumors with MTAP loss. Cancer Res (2025) 85 (8_Supplement_1): 462.
[2]. Cottrell KM, et al. The Discovery of TNG456: A Highly Potent, Selective, Brain-Penetrant MTA-Cooperative PRMT5 Inhibitor for the Treatment of MTAP -Deleted Cancers. J Med Chem. Published online May 18, 2026.