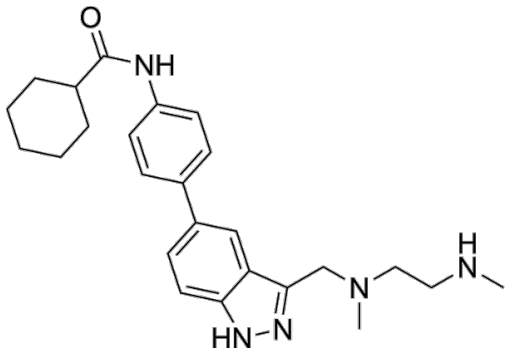
Product Data Sheet

Product Name: SKLB06489
Cat. No.: GC81481

Chemical Properties

Cas. No.			
Formula	$C_{25}H_{33}N_5O$	M.Wt	419.56
Solubility		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

SKLB06489 is a selective and orally active inhibitor of type I PRMT enzymes, with IC_{50} values of 64.55 nM (PRMT1), 4.21 nM (PRMT6), and 51.27 nM (PRMT8). SKLB06489 inhibits cell proliferation, colony formation, DNA replication, and DNA damage repair in cancer cells. SKLB06489 induces G0/G1-phase cell cycle arrest and apoptosis in cancer cells. SKLB06489 enhances

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

intracellular cholesterol efflux via ABCA1 and ABCG1 upregulation, disrupts cholesterol metabolic homeostasis, and suppresses tumor growth in subcutaneous xenograft models. SKLB06489 can be used for the research of triple-negative breast cancer (TNBC) [1].

In Vivo, SKLB06489 (40-80 mg/kg; i.g.; daily; 33 days) suppresses MDA-MB-231 tumor growth in vivo with a TGI of 58.4% at 80 mg/kg, inhibiting cell proliferation and inducing apoptosis[1].

In Vitro, SKLB06489 (40 μM; 8 h) selectively and stably binds to PRMT1 and PRMT6 in HEK293T cells, enhancing their thermal stability[1]. SKLB06489 (5-7 days) dose-dependently inhibits proliferation of MDA-MB-231, Hs578T, and BT549 TNBC cells with IC_{50} values in the low micromolar range[1]. SKLB06489 (2.5-20 μM; 12-14 days) dose-dependently inhibits colony formation in MDA-MB-231, Hs578T, and BT549 TNBC cells[1]. SKLB06489 (2.5-10 μM; 6 days) dose-dependently reduces ADMA levels in MDA-MB-231 and Hs578T TNBC cells, indicating inhibition of type I PRMT enzymatic activity in cells[1]. SKLB06489 (5-20 μM; 1-3 days) dose- and time-dependently inhibits DNA replication in MDA-MB-231, Hs578T, and BT549 TNBC cells[1]. SKLB06489 (10 μM; 24 h) impairs DNA damage repair in MDA-MB-231 and Hs578T TNBC cells, with a more pronounced effect than MS023 in Hs578T cells[1]. SKLB06489 (5-20 μM; 24 h) dose-dependently induces G0/G1 phase cell cycle arrest in MDA-MB-231, Hs578T, and BT549 TNBC cells[1]. SKLB06489 (5-20 μM; 72 h) dose-dependently induces apoptosis in MDA-MB-231, Hs578T, and BT549 TNBC cells[1]. SKLB06489 (10 μM; 4 days) upregulates ABCA1 and ABCG1 mRNA expression in MDA-MB-231 and Hs578T TNBC cells[1]. SKLB06489 (5-10 μM; 4 days) dose-dependently enhances cholesterol efflux (increasing medium cholesterol) and reduces intracellular cholesterol in MDA-MB-231 and Hs578T TNBC cells[1]. SKLB06489 (5-10 μM) upregulates ABCG1 protein levels in MDA-MB-231 and Hs578T TNBC cells[1].

References:
[1]. Zhou SY, et al. Discovery of a potent and orally bioavailable type I PRMTs inhibitor for triple-negative breast cancer treatment. Acta Pharmacol Sin. Published online January 16, 2026.