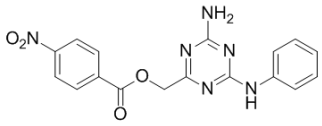
TZ9

Cat. No.:	HY-18643
CAS No.:	1002789-86-7
Molecular Formula:	$C_{17}H_{14}N_6O_4$
Molecular Weight:	366.33
Target:	E1/E2/E3 Enzyme
Pathway:	Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 40 mg/mL (109.19 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.7298 mL	13.6489 mL	27.2978 mL
	5 mM	0.5460 mL	2.7298 mL	5.4596 mL
	10 mM	0.2730 mL	1.3649 mL	2.7298 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (6.82 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.68 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

TZ9 is a novel inhibitor of Rad6 ubiquitin conjugating enzyme(E2 enzyme); inhibits MDA-MB-231 cell proliferation with IC50 of ~6 uM.IC50 value: 6 uM [1]Target: Rad6 inhibitorThe bulk of MDA-MB-231 cells treated with 10 μmol/L or more SMI #9 displayed a round morphology compared with controls and less than 5 μmol/L doses of SMI #9. Simultaneous comparison of SMIs #8 and 9 confirmed SMI #9 inhibits Matrigel-induced migration of MDA-MB-231 cells in a dose-dependent manner compared with SMI #8. 5 μmol/L SMI #9 treatment triggered morphologic changes consistent with apoptosis in a time-dependent manner. 5 μmol/L SMI #9 treatment of MDA-MB-231 cells for 24 hours increased the proportion of G2–M-arrested cells by 2-fold and was accompanied by a proportional decrease in S-phase cells. SMIs #8 or 9 treatments dramatically reduced β-catenin staining as visualized by reduced merged Rad6/β-catenin yellow fluorescence.

CUSTOMER VALIDATION

- Biochem Bioph Res Co. 2020 Oct 20;531(3):402-408.

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REFERENCES

[1]. Sanders MA, et al. Novel inhibitors of Rad6 ubiquitin conjugating enzyme: design, synthesis, identification, and functional characterization. Mol Cancer Ther. 2013 Apr;12(4):373-83.

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