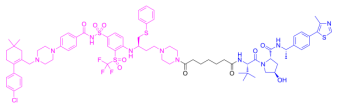
DT2216

Cat. No.:	HY-130604
CAS No.:	2365172-42-3
Molecular Formula:	$C_{77}H_{96}ClF_3N_{10}O_{10}S_4$
Molecular Weight:	1542.36
Target:	PROTACs; Apoptosis; Bcl-2 Family
Pathway:	PROTAC; Apoptosis
Storage:	-20°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (16.21 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	0.6484 mL	3.2418 mL	6.4836 mL
	5 mM	0.1297 mL	0.6484 mL	1.2967 mL
	10 mM	0.0648 mL	0.3242 mL	0.6484 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 (1.62 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (1.62 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (1.62 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

DT2216 is a potent and selective BCL-XL (Bcl-2 family member) degrader based on PROTAC technology. DT2216 causes effective degradation of BCL-XL protein by recruiting Von Hippel-Lindau (VHL) E3 ubiquitin ligase. DT2216 inhibits various BCL-XL-dependent leukemia and cancer cells but considerably less toxic to platelets. DT2216 is composed of the Bcl-2 family protein inhibitor Navitoclax (HY-10087), a linker, and a VHL E3 ubiquitin ligase (Red: Navitoclax; Blue: VHL ligand; Black: linker)[1].

IC_{50} & Target

VHL

In Vitro

DT2216 (62.5, 125 nM; 72 hours) kills MOLT-4 cells[1].

DT2216 (0.001-10 μM; 72 hour) shows highly toxic to MOLT-4 cells with an EC_{50} of 0.052 μM[1].
DT2216 (0.1, 0.3 μM; 24 hours) kills MOLT-4 cells by caspase-3-mediated induction of apoptosis in a BCL-2 homologous antagonist killer (BAK)- and BCL-2-associated X protein (BAX)-dependent manner[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Apoptosis Analysis[1]

Cell Line:	MOLT-4 cells
Concentration:	62.5, 125 nM
Incubation Time:	72 hours
Result:	Killed MOLT-4 cells.

Cell Cytotoxicity Assay[1]

Cell Line:	MOLT-4 cells
Concentration:	0.001, 0.01, 0.1, 1, 10 μM
Incubation Time:	72 hours
Result:	Showed highly toxic to MOLT-4 cells with an EC_{50} of 0.052 μM.

Western Blot Analysis[1]

Cell Line:	MOLT-4 cells
Concentration:	0.1, 0.3 μM
Incubation Time:	24 hours
Result:	Killed MOLT-4 cells by caspase-3-mediated induction of apoptosis in a BCL-2 homologous antagonist killer (BAK)- and BCL-2-associated X protein (BAX)-dependent manner.

In Vivo

DT2216 (i.p.; 7.5, 15 mg/kg; weekly for 60 days) of 15 mg/kg is more effective at suppressing the growth of MOLT-4 T-ALL xenografts in mice than 7.5 mg/kg[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	CB17/Icr-Prkdcscid/IcrIcoCrl (CB-17 SCID) mice aged 5-6 weeks[1]
Dosage:	7.5, 15 mg/kg
Administration:	i.p.; weekly for 60 days
Result:	Suppressed the growth of MOLT-4 T-ALL xenografts in mice.

CUSTOMER VALIDATION

- Blood Adv. 2023 Sep 20;bloodadvances.2022008899.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Khan S, et al. A selective BCL-XL PROTAC degrader achieves safe and potent antitumor activity. Nat Med. 2019 Dec;25(12):1938-1947.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA