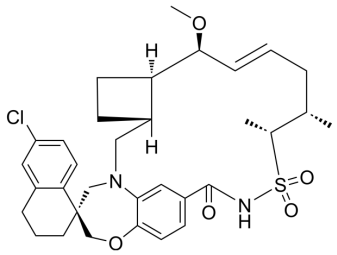
Tapotoclax

Cat. No.:	HY-101565
CAS No.:	1883727-34-1
Molecular Formula:	$C_{33}H_{41}ClN_2O_5S$
Molecular Weight:	613.21
Target:	Bcl-2 Family
Pathway:	Apoptosis
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 1 year -20°C 6 months



SOLVENT & SOLUBILITY

In Vitro

DMSO : 62.5 mg/mL (101.92 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.6308 mL	8.1538 mL	16.3076 mL
	5 mM	0.3262 mL	1.6308 mL	3.2615 mL
	10 mM	0.1631 mL	0.8154 mL	1.6308 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 mg/mL (3.26 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2 mg/mL (3.26 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: 2 mg/mL (3.26 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Tapotoclax (AMG-176) is a potent, selective and orally active MCL-1 inhibitor, with a K_i of 0.13 nM[1][2].

IC_{50} & Target

Mcl-1
0.13 nM (Ki)

In Vitro

Tapotoclax is an inhibitor of induced myeloid leukemia cell differentiation protein MCL-1 (K_i=0.13 nM), with potential pro-apoptotic and antineoplastic activities. Upon administration, Tapotoclax binds to and inhibits the activity of MCL-1. This

disrupts the formation of MCL-1/Bcl-2-like protein 11 (BCL2L11; BIM) complexes and induces apoptosis in tumor cells[1][2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cell Rep. 2023 Sep 27;42(10):113176.
- Int J Cancer. 2020 Oct 15;147(8):2176-2189.

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REFERENCES

[1]. Caenepeel S, et al. AMG 176, a Selective MCL1 Inhibitor, is Effective in Hematological Cancer Models Alone and in Combination with Established Therapies. Cancer Discov. 2018 Sep 25. pii: CD-18-0387.

[2]. Garner TP, et al. Progress in targeting the BCL-2 family of proteins. Curr Opin Chem Biol. 2017 Aug;39:133-142.

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