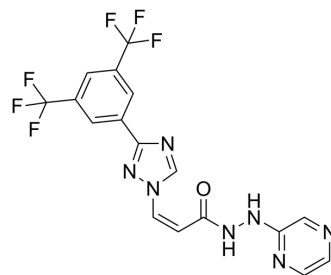


Selinexor

Cat. No.:	HY-17536		
CAS No.:	1393477-72-9		
Molecular Formula:	C ₁₇ H ₁₁ F ₆ N ₇ O		
Molecular Weight:	443.31		
Target:	CRM1		
Pathway:	Membrane Transporter/Ion Channel		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 48 mg/mL (108.28 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.2558 mL	11.2788 mL	22.5576 mL
	5 mM	0.4512 mL	2.2558 mL	4.5115 mL
	10 mM	0.2256 mL	1.1279 mL	2.2558 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (5.64 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.08 mg/mL (4.69 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: 2.08 mg/mL (4.69 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Selinexor (KPT-330), analog of KPT-185, is an orally bioavailable and selective CRM1 inhibitor^{[1][2]}.

IC₅₀ & Target

CRM1

In Vitro

As the clinical candidate analog of KPT-185, KPT-330 exhibits similar effects on the viability of T-ALL cells and elicits rapid apoptotic response. KPT-330 also reduces cell growth in MOLT-4, Jurkat, HBP-ALL, KOPTK-1, SKW-3, and DND-41 cell lines,

with IC₅₀ values of 34-203 nM^[1].

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

In Vivo

Selinexor (KPT-330) dramatically suppresses the growth of T-ALL cells (MOLT-4) and AML cells (MV4-11) in vivo, with little toxicity to normal haematopoietic cells^[1].

In SCID mice with diffuse human MM bone lesions, KPT-330 inhibits MM-induced bone lysis and prolongs survival. Moreover, KPT-330 directly impairs osteoclastogenesis and bone resorption by blocking RANKL-induced NF-κB and NFATc1, with minimal impact on osteoblasts and BMSCs^[2].

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

CUSTOMER VALIDATION

- J Exp Med. 2020 Jul 6;217(7):e20192083.
- Leukemia. 2023 Mar 28.
- Int J Biol Sci. 2023 Jul 3; 19(11):3412-3427.
- J Ethnopharmacol. 2024 Mar 20;328:118057.

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REFERENCES

[1]. Etchin J, et al. KPT-330 inhibitor of CRM1 (XPO1)-mediated nuclear export has selective anti-leukaemic activity in preclinical models of T-cell acute lymphoblastic leukaemia and acute myeloid leukaemia. Br J Haematol. 2013 Apr;161(1):117-27.

[2]. Tai YT, et al. CRM1 inhibition induces tumor cell cytotoxicity and impairs osteoclastogenesis in multiple myeloma: molecular mechanisms and therapeutic implications. Leukemia. 2014 Jan;28(1):155-65.

Caution: Product has not been fully validated for medical applications. For research use only.

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