Proteins

Product Data Sheet

FKBP12 PROTAC RC32

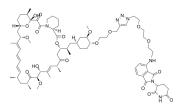
Cat. No.: HY-130835 CAS No.: 2375555-66-9 Molecular Formula: $C_{75}H_{107}N_{7}O_{20}$ Molecular Weight: 1426.69

Target: PROTACs; FKBP

Pathway: PROTAC; Apoptosis; Autophagy; Immunology/Inflammation

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: 10 mg/mL (7.01 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	0.7009 mL	3.5046 mL	7.0092 mL
	5 mM	0.1402 mL	0.7009 mL	1.4018 mL
	10 mM			

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: 1 mg/mL (0.70 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description	FKBP12 PROTAC RC32 (RC32) is a potent FKBP12 degrader based on PROTAC technology. FKBP12 PROTAC RC32 contains conjugation of Rapamycin (HY-10219) and a ligand for an Cereblon E3 ubiquitin ligase (Pomalidomide; HY-10984) ^[1] .		
IC ₅₀ & Target	Cereblon		
In Vitro	hours of treatment $^{[1]}$.	2; 0.1-1000 nM; for 12 hours) results in 50% protein degradation (DC ₅₀) of ~0.3 nM after only 12 confirmed the accuracy of these methods. They are for reference only.	
	Cell Line:	Jurkat cells	

Concentration:	0.1, 1, 10, 100, 1000 nM
Incubation Time:	For 12 hours
Result: Resulted in 50% protein degradation (DC ₅₀) of ~0.3 nM after only 12 h of treatment.	

In Vivo

RC32 (RC32; i.p.; 30 mg/kg; twice a day; 1 day) degrades the FKBP12 protein in most of the organs of treated mice, except for the brain after only 1 day of treatment in mice^[1].

RC32 (orally; 60 mg/kg; twice a day; for 1 day) significantly degrades FKBP12 in mice $^{[1]}$.

RC32 (i.p.; 8 mg/kg; twice a day; for 2 days) efficiently degrades the FKBP12 protein in most of the organs examined in Bama pigs (20 kg) [1].

RC32 (i.p.; 8 mg/kg; twice a day; for 3 days) efficiently degrades FKBP12 in the heart, liver, kidney, spleen, lung, and stomach of rhesus monkeys [1].

 $\label{eq:mce} \mbox{MCE has not independently confirmed the accuracy of these methods. They are for reference only.}$

Animal Model:	Male and female mice $^{[1]}$	
Dosage:	30 mg/kg	
Administration:	IP; twice a day; 1 day	
Result:	Degraded the FKBP12 protein in most of the organs of treated mice after only 1 day of treatment.	

REFERENCES

[1]. A chemical approach for global protein knockdown from mice to non-human primates. Cell Discov. 2019 Feb 5; 5:10.

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

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