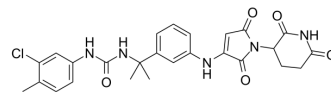


## ALV2

Cat. No.:	HY-137206		
CAS No.:	2438124-95-7		
Molecular Formula:	C <sub>26</sub> H <sub>26</sub> ClN <sub>5</sub> O <sub>5</sub>		
Molecular Weight:	523.97		
Target:	Ligands for E3 Ligase; Molecular Glues		
Pathway:	PROTAC		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



## SOLVENT & SOLUBILITY

### In Vitro

DMSO : 160 mg/mL (305.36 mM; Need ultrasonic)  
 H<sub>2</sub>O : < 0.1 mg/mL (insoluble)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	1.9085 mL	9.5425 mL	19.0851 mL
5 mM	0.3817 mL	1.9085 mL	3.8170 mL
10 mM	0.1909 mL	0.9543 mL	1.9085 mL

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

### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
 Solubility: 4 mg/mL (7.63 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
 Solubility: 4 mg/mL (7.63 mM); Suspended solution; Need ultrasonic

## BIOLOGICAL ACTIVITY

### Description

ALV2 is a potent and selective Helios degrader. ALV2 binds CRBN, with an IC<sub>50</sub> of 0.57 μM. Helios is the zinc-finger transcription factor that can maintain a stable T<sub>reg</sub> cell phenotype in the inflammatory tumor microenvironment<sup>[1]</sup>.

### IC<sub>50</sub> & Target

IC<sub>50</sub>: 0.57 μM (CRBN)<sup>[1]</sup>

### In Vitro

ALV2 (10 nM-100 μM) induces CRBN-Helios dimerization in the TR-FRET assay<sup>[1]</sup>.  
 ALV2 (0.1-10 μM) preferentially promotes Helios degradation in Jurkat cells<sup>[1]</sup>.  
 ALV2 (1 μM; pretreated for 18 h) promotes IL-2 secretion in Jurkat cells<sup>[1]</sup>.  
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**In Vivo**

ALV2 (100 mg/kg; i.p. twice daily for 7 days) induces selective Helios degradation in vivo<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Crbn <sup>I391V/I391V</sup> mice
Dosage:	100 mg/kg
Administration:	I.p. twice daily for 7 days
Result:	Reduced Helios, but not Ikaros, levels in splenic CD4 <sup>+</sup> FoxP3 <sup>+</sup> Treg cells.

**REFERENCES**

[1]. Wang ES, et, al. Acute pharmacological degradation of Helios destabilizes regulatory T cells. Nat Chem Biol. 2021 Jun;17(6):711-717.

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

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