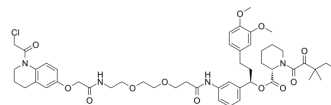


## KB02-SLF

<b>Cat. No.:</b>	HY-129610
<b>CAS No.:</b>	2384184-40-9
<b>Molecular Formula:</b>	C <sub>50</sub> H <sub>65</sub> ClN <sub>4</sub> O <sub>12</sub>
<b>Molecular Weight:</b>	949.52
<b>Target:</b>	PROTACs; FKBP
<b>Pathway:</b>	PROTAC; Apoptosis; Autophagy; Immunology/Inflammation
<b>Storage:</b>	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



## SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 100 mg/mL (105.32 mM; Need ultrasonic)				
		Solvent Concentration	Mass		
	<b>Preparing Stock Solutions</b>		1 mg	5 mg	10 mg
		1 mM	1.0532 mL	5.2658 mL	10.5316 mL
		5 mM	0.2106 mL	1.0532 mL	2.1063 mL
	10 mM	0.1053 mL	0.5266 mL	1.0532 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: 5 mg/mL (5.27 mM); Suspended solution; Need ultrasonic</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: 5 mg/mL (5.27 mM); Suspended solution; Need ultrasonic</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 5 mg/mL (5.27 mM); Clear solution</li> </ol>				

## BIOLOGICAL ACTIVITY

<b>Description</b>	KB02-SLF is a PROTAC-based nuclear FKBP12 degrader (molecular glue). KB02-SLF promotes nuclear FKBP12 degradation by covalently modifying DCAF16 (E3 ligase) and can improve the durability of protein degradation in biological systems. SLF binds ubiquitin E3 ligase ligand KB02 via a linker to form KB02-SLF <sup>[1]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	FKBP12 <sup>[1]</sup>
<b>In Vitro</b>	KB02-SLF (2 μM; 4-72 hours; HEK293T cells) treatment promotes a substantial reduction in nuclear FKBP12 that is sustained across a 4-72 h time frame <sup>[1]</sup> .

Cell imaging studies confirms the selective loss of nuclear-localized FKBP12 in KB02-SLF-treated cells. KB02-SLF promotes the loss of FKBP12\_NLS across a concentration of ~0.5-5µM, but shows varied reductions in activity at higher concentrations. The degradation of FKBP12\_NLS induced by KB02-SLF is mediated by DCAF16<sup>[1]</sup>.

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

#### Western Blot Analysis<sup>[1]</sup>

Cell Line:	HEK293T cells
Concentration:	2 µM
Incubation Time:	4 hours, 8 hours, 24 hours, 48 hours, 72 hours
Result:	Promoted a substantial reduction in nuclear FKBP12 that was sustained across a 4-72 h time frame.

## REFERENCES

[1]. Zhang X, et al. Electrophilic PROTACs that degrade nuclear proteins by engaging DCAF16. Nat Chem Biol. 2019 Jul;15(7):737-746.

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

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