## CP5V

Cat. No.: CAS No.: Molecular Formula: Molecular Weight: Target: Pathway:	HY-130257 2509359-75-3 C <sub>46</sub> H <sub>66</sub> Cl <sub>3</sub> N <sub>9</sub> O <sub>12</sub> S 1075.49 PROTACs PROTAC	$(\mathcal{A}^{\alpha}\mathcal{A}^{\beta}\mathcal{A}^{\alpha}\mathcal{A}^{\beta}\mathcal{A}^{\alpha}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\alpha}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}\mathcal{A}^{\beta}A$
Pathway: Storage:	PROTAC -20°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)	

### SOLVENT & SOLUBILITY

In Vitro	DMSO : 150 mg/mL (139.47 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg	
		1 mM	0.9298 mL	4.6490 mL	9.2981 mL	
		5 mM	0.1860 mL	0.9298 mL	1.8596 mL	
		10 mM	0.0930 mL	0.4649 mL	0.9298 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: ≥ 3.75 mg/mL (3.49 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 3.75 mg/mL (3.49 mM); Clear solution					
	3. Add each solvent o Solubility: ≥ 3.75 m	one by one: 10% DMSO >> 90% cor ng/mL (3.49 mM); Clear solution	n oil			

BIOLOGICAL ACTIV				
Description	CP5V is a PROTAC connected by ligands for von Hippel-Lindau and CDK, which specifically degrades Cdc20 by linking Cdc20 to the VHL/VBC complex for ubiquitination followed by proteasomal degradation. CP5V induces mitotic inhibition and suppresses cancer cell proliferation <sup>[1]</sup> .			
In Vitro	CP5V comprises a Cdc20 ligand and VHL binding moiety bridged by a PEG5 linker that induces Cdc20 degradation. CP5V induces degradation of Cdc20 leading to significant inhibition of breast cancer cell proliferation and resensitization of Taxol-resistant cell lines <sup>[1]</sup> . CP5V profoundly degrades Cdc20 in both MCF7 and MDA-MB-231 cells with DC50 being approximately 1.6 μM <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.			

# Product Data Sheet



### REFERENCES

[1]. Chi JJ, et al. A novel strategy to block mitotic progression for targeted therapy. EBioMedicine. 2019 Oct 25. pii: S2352-3964(19)30677-2.

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

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