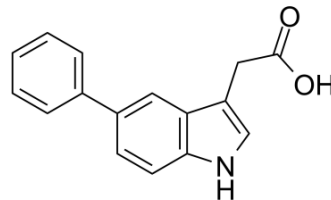


5-Ph-IAA

Cat. No.:	HY-134653		
CAS No.:	168649-23-8		
Molecular Formula:	C ₁₆ H ₁₃ NO ₂		
Molecular Weight:	251.28		
Target:	Others		
Pathway:	Others		
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 : 125 mg/mL (497.45 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	3.9796 mL	19.8981 mL	39.7962 mL
		5 mM	0.7959 mL	3.9796 mL	7.9592 mL
10 mM		0.3980 mL	1.9898 mL	3.9796 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (8.28 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (8.28 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (8.28 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	5-Ph-IAA is a derivative of IAA. 5-Ph-IAA, a ligand, establishes the auxin-inducible degron 2 (AID2) system together with an OsTIR1 (F74G) mutant. AID2 induces rapid and efficient depletion of mAID-fused proteins to study protein function in living cells, causing tumor suppression ^[1] .
In Vitro	HCT116 cells constitutively expressing OsTIR1(F74G) are exposed to 5-Ph-IAA (1 μM; 6 hours), leading to DHC1-mAC degradation, which means the AID2 system better than the original AID system in generating conditional mutant cell lines ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

	Western Blot Analysis ^[1]	
	Cell Line:	HCT116 cells
	Concentration:	1 μ M
	Incubation Time:	6 hours
	Result:	Depleted DHC1-mAC efficiently in HCT116 cells constitutively expressing OsTIR1(F74G).
In Vivo	5-Ph-IAA (0-10 mg/kg; intraperitoneally injection; every day; 7 days), used for the AID2 system, is sufficient to deplete mAID-BRD4 and TOP2A-mAC, leading to tumour suppression ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Balb/c-nu female mice (7 weeks old; 16–20 g) bearing mAID-BRD4 and TOP2A-mAC xenograft tumours cells ^[1]
	Dosage:	0 mg/kg, 1 mg/kg, 3 mg/kg and 10 mg/kg
	Administration:	Intraperitoneally injection; every day; 7 days
	Result:	Displayed significant tumour suppression of mAID-BRD4 xenografts and TOP2A-mAC xenografts.

REFERENCES

[1]. Aisha Yesbolatova, et al. The auxin-inducible degron 2 technology provides sharp degradation control in yeast, mammalian cells, and mice. Nat Commun. 2020 Nov 11;11(1):5701.

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

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