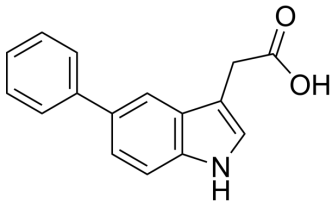
5-Ph-IAA

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 : 100 mg/mL (397.96 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	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

1. 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
2. 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
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (8.28 mM); Clear solution
4. Add each solvent one by one: PBS
   Solubility: 1 mg/mL (3.98 mM); Clear solution; Need ultrasonic and warming and heat to 60°C

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

5-Ph-IAA (1 μM; 6 hours) leads to DHC1-mAC degradation in HCT116 cells constitutively expressing OsTIR1(F74G), 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 μM
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.

CUSTOMER VALIDATION

- Nature. 2023 Jun;618(7963):180-187.
- Science. 2023 Aug 17;eadi3448.
- Mol Cell. 2023 Jan 4;S1097-2765(22)01169-8.
- Genome Biol. 2023 Jan 26;24(1):14.

See more customer validations on www.MedChemExpress.com

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.

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