# PD-L1-IN-2

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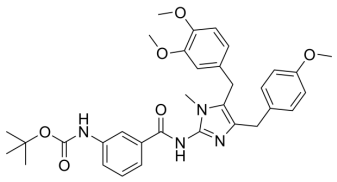
| **Cat. No.:** | HY-149830 |
| **CAS No.:** | 2894733-91-4 |
| **Molecular Formula:** | $C_{33}H_{38}N_4O_6$ |
| **Molecular Weight:** | 586.68 |
| **Target:** | PD-1/PD-L1 |
| **Pathway:** | Immunology/Inflammation |
| **Storage:** | Powder -20°C 3 years<br>In solvent -80°C 6 months<br>-20°C 1 month |



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 50 mg/mL (85.23 mM; Need ultrasonic)

| Preparing Stock Solutions | Mass / Solvent / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 1.7045 mL | 8.5225 mL | 17.0451 mL |
| | 5 mM | 0.3409 mL | 1.7045 mL | 3.4090 mL |
| | 10 mM | 0.1705 mL | 0.8523 mL | 1.7045 mL |

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

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.26 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

PD-L1-IN-2 is a potential tumor immunological agent by inhibiting PD-L1. PD-L1-IN-2 is a Naamidine J derivative and exerts antitumor effects in vivo by reducing PD-L1 expression and enhancing tumor-infiltrating T-cell immunity. PD-L1-IN-2 is used for colorectal cancer research[1].

**In Vitro**

PD-L1-IN-2 (compound 11c) is against RKO Cells with an $IC_{50}$ value of 31.7μM[1].

PD-L1-IN-2 (0-10 μM; 0-24 hours) decreases PD-L1 expression in a dose-dependent and time dependent manner in RKO cells [1].

PD-L1-IN-2 (0-10 μM; 0-24 hours) promotes the turnover of PD-L1 protein.It shows the turnover rate of PD-L1 in PD-L1-IN-2-treated cells is faster than that in untreated cells in the CHX pulse-chase[1].

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

Western Blot Analysis[1]

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| Cell Line: | RKO cells |
| Concentration: | 5 μM |
| Incubation Time: | 0h, 1h, 3h, 6h, 9h, 12h |
| Result: | Promoted the turnover of PD-L1 protein. |

**In Vivo**

PD-L1-IN-2 (compound 11c) (i.p.; 25/50 mg/kg; once a day; 16 days) decreases the tumor sizes with an inhibition rate of 45% at 45 mg/kg, and the average tumor weight of the 50 mg/kg groups is significantly lower than that of the PBS group[1].

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

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| Animal Model: | C57BL/6 mice with subcutaneous MC38 tumors[1] |
| Dosage: | 25/50 mg/kg |
| Administration: | i.p.; 25/50 mg/kg; once a day; 16 days |
| Result: | Suppressed MC38 tumor growth in vivo. |

## REFERENCES

[1]. Pan-Pan Fu, et al. Bioactivity-Driven Synthesis of the Marine Natural Product Naamidine J and Its Derivatives as Potential Tumor Immunological Agents by Inhibiting Programmed Death-Ligand 1. J Med Chem. 2023 Apr 27;66(8):5427-5438.



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