PD-L1-IN-3

Cat. No.: HY-155101

CAS No.: 2953044-29-4

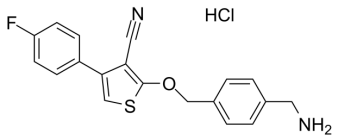
Molecular Formula: $C_{19}H_{16}ClFN_2OS$

Molecular Weight: 374.86

Target: PD-1/PD-L1

Pathway: Immunology/Inflammation

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (333.46 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6677 mL	13.3383 mL	26.6766 mL
	5 mM	0.5335 mL	2.6677 mL	5.3353 mL
	10 mM	0.2668 mL	1.3338 mL	2.6677 mL

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

BIOLOGICAL ACTIVITY

Description

PD-L1-IN-3 (Compound 4a) is a compound that targets PD-1/PD-L1, the IC_{50} value and EC_{50} value is 4.97nM and 2.70 μM for inhibit PD-L1 and Jurkat T cells, respectively. PD-L1-IN-3 can bind PD-L1 dimer to prevent PD-1 binding to PD-L1, therefore blocking PD-1 signaling. PD-L1-IN-3 can be used for lung cancer and melanoma diseases research[1].

In Vitro

PD-L1-IN-3 (Compound 4a) (0.01-100 μM, 40 min) disrupts the binding between PD-1 and PD-L1 and enhances a TCR-mediated activation of the Jurkat cells[1].

PD-L1-IN-3 (0.01-100 μM, 40 min) has higher uptake which correlated with PD-L1 expression in PD-L1$^+$ H358 tumors[1].

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

Cell Viability Assay[1]

Cell Line:	Jurkat cells
Concentration:	0.01-100 μM
Incubation Time:	40 min
Result:	Observed EC_{50} value of 2.70 μM.

Immunofluorescence[1]

Cell Line:	PD-L1$^{+/-}$ (H358 and ES2) tumor
Concentration:	0.01-100 μM
Incubation Time:	40 min
Result:	Observed 40-55% higher uptake in PD-L1^{+} H358 tumors than in wild-type counterparts. Failed to discriminate between wild-type and knock-out for ES2 slides.

REFERENCES

[1]. Ważyńska MA, et al. Design, Synthesis, and Biological Evaluation of 2-Hydroxy-4-phenylthiophene-3-carbonitrile as PD-L1 Antagonist and Its Comparison to Available Small Molecular PD-L1 Inhibitors. J Med Chem. 2023 Jul 27;66(14):9577-9591.

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