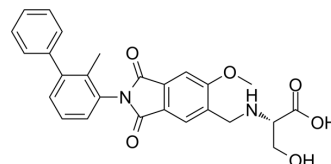


## PD-1/PD-L1-IN-29

Cat. No.:	HY-152240	
CAS No.:	2665734-13-2	
Molecular Formula:	C <sub>26</sub> H <sub>24</sub> N <sub>2</sub> O <sub>6</sub>	
Molecular Weight:	460.48	
Target:	PD-1/PD-L1	
Pathway:	Immunology/Inflammation	
Storage:	Powder	-20°C 3 years
	In solvent	-80°C 6 months
		-20°C 1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 66.67 mg/mL (144.78 mM; ultrasonic and adjust pH to 2 with 1M HCl)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.1716 mL	10.8582 mL	21.7165 mL
	5 mM	0.4343 mL	2.1716 mL	4.3433 mL
	10 mM	0.2172 mL	1.0858 mL	2.1716 mL

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

### BIOLOGICAL ACTIVITY

#### Description

PD-1/PD-L1-IN-29 (S4-1) is a potent PD-1/PD-L1 inhibitor with an IC<sub>50</sub> value of 6.1 nM. PD-1/PD-L1-IN-29 binds PD-L1 and disrupts PD-1/PD-L1 interactions, induces PD-L1 dimerization and internalization, improves its localization to the endoplasmic reticulum, and promotes PD-L1 entry into the endoplasmic reticulum. PD-1/PD-L1-IN-29 has anticancer activity [1].

#### In Vitro

PD-1/PD-L1-IN-29(S4-1) (10 or 20 μM, 48 h) can increase the cytotoxicity of PBMCs against A375 tumor cells by blocking PD-1/PD-L1 interaction and restoring the activation state of PBMCs, with little direct killing effect on tumor cells<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### In Vivo

PD-1/PD-L1-IN-29(S4-1)(10 or 25 mg/kg, i.p., 12 days) significantly inhibits tumour growth in the MC38 colorectal tumour mouse model, as observed in both the low and high dose groups (10 and 25 mg/kg), with inhibition rates of 65.9% and 88.8% respectively<sup>[1]</sup>.

The pharmacokinetic parameters of PD-1/PD-L1-IN-29(S4-1) in mice

Parameters	iv (5 mg/kg)	po (50 mg/kg)
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$T_{1/2}$ (h)	9.78	4.77
$T_{max}$ (h)	0.08	0.92
$C_{max}$ (ng/mL)	6290	260.67
$AUC_{0-t}$ (h*ng/mL)	3466.58/td>	808.04
$AUC_{0-\infty}$ (h*ng/mL)	3566.62	830.34
CL (mL/h/kg)	1404.22	-

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

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## REFERENCES

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[1]. Chengliang Sun, et al. Novel Small-Molecule PD-L1 Inhibitor Induces PD-L1 Internalization and Optimizes the Immune Microenvironment. J Med Chem. 2022 Dec 29.

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

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