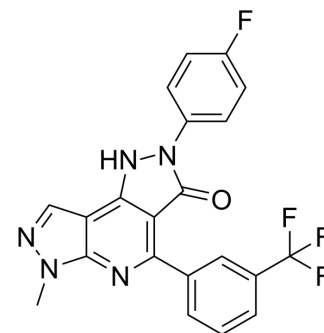


B7/CD28 interaction inhibitor 1

Cat. No.:	HY-102090		
CAS No.:	635324-72-0		
Molecular Formula:	C ₂₁ H ₁₃ F ₄ N ₅ O		
Molecular Weight:	427.35		
Target:	CD28		
Pathway:	Immunology/Inflammation		
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 : 62.5 mg/mL (146.25 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.3400 mL	11.7000 mL	23.4000 mL
		5 mM	0.4680 mL	2.3400 mL	4.6800 mL
10 mM		0.2340 mL	1.1700 mL	2.3400 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 (4.87 mM); Suspended solution; Need ultrasonic				

BIOLOGICAL ACTIVITY

Description	B7/CD28 interaction inhibitor 1 (compound 6b) is a potent B7.1-CD28 interaction inhibitor with an IC ₅₀ of 50 nM ^[1] .
IC₅₀ & Target	IC ₅₀ : 50 nM (B7.1-CD28 interaction) ^[1]
In Vitro	Bivalent CTLA4 homodimers bridge bivalent B7.1 homodimers to form an unusually stable signaling complex. Blocking B7/CD28 interactions with monoclonal antibodies or soluble receptors results in immunosuppression and enhanced allograft survival, while B7/CTLA-4 blockade results in enhanced antitumor immune responses. The interaction of co-stimulatory molecules on T cells with B7 molecules on antigen presenting cells plays an important role in the activation of naive T cells. Consequently, agents that disrupt these interactions should have applications in treatment of transplant rejection as well as autoimmune diseases ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Green NJ, et al. Structure-activity studies of a series of dipyrzolo[3,4-b:3',4'-d]pyridin-3-ones binding to the immune regulatory protein B7.1. Bioorg Med Chem. 2003 Jul 3;11(13):2991-3013.

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

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