

产品名称: **PD1-PDL1 inhibitor 1**

产品别名: **BMS-1**

生物活性:				
Description	BMS-1 is an inhibitor of the PD-1/PD-L1 protein/protein interaction (IC50 between 6 and 100 nM)[1][2].			
IC ₅₀ & Target	PD1-PDL1[1]			
In Vitro	Since PD-1 mediated the exhaustion of natural killer (NK) cell by binding to its ligand PD-L1, BMS-1 (PD-1/PD-L1 inhibitor 1) (1 μM, 3 days) is used to disturb the interaction between PD-1 and PD-L1. Dexamethasone induced increase of PD-1 expression and decrease of cytotoxicity of the co-cultured NK92 cells are reversed by BMS-1[1]. BMS-1, a small-molecule immune checkpoint inhibitor of PD-1/PD-L1, can be used as a therapeutic strategy for tumor immunotherapy[2].			
	Cell Cytotoxicity Assay[1]			
	Cell Line:	NK cells and HepG2 cells		
	Concentration:	1 μM		
	Incubation Time:	3 days		
	Result:	Disturbed the interaction between PD-1 and PD-L1.		
In Vivo	BMS-1 (500 μg/mL; 100 μL; i.p.) significantly slows down tumor growth and prolongs the survival rates in BALB/c mice[3].			
	Animal Model:	BALB/c mice[3]		
	Dosage:	500 μg/mL; 100 μL		
	Administration:	I.p.		
	Result:	Administration significantly slowed down tumor growth and prolonged the survival rates.		
Solvent&Solubility	In Vitro: DMSO : ≥ 29 mg/mL (60.98 mM) * "≥" means soluble, but saturation unknown.			
		Solvent Concentration	Mass	
	Preparing	1 mM	2.1027 mL	10.5135 mL
	Stock Solutions	5 mM	0.4205 mL	2.1027 mL
		10 mM	0.2103 mL	1.0513 mL
	*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液。一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。			
	储备液的保存方式和期限：-80℃, 6 months; -20℃, 1 month。 -80℃ 储存时，请在 6 个月内使用，-20℃ 储存时，请在 1 个月内使用。			
References	[1]. Zhao Y, et al. Depression Promotes Hepatocellular Carcinoma Progression through a Glucocorticoids Mediated Up-Regulation of PD-1 Expression in Tumor infiltrating NK Cells. Carcinogenesis. 2019 Feb 4. [2]. Li K, et al. Development of small-molecule immune checkpoint inhibitors of PD-1/PD-L1 as a new therapeutic strategy for tumour immunotherapy. J Drug Target. 2019 Mar;27(3):244-256. [3]. Zhang H, et al. Utilizing VEGF165b mutant as an effective immunization adjunct to augment antitumor immune response. Vaccine. 2019 Apr 3;37(15):2090-2098.			