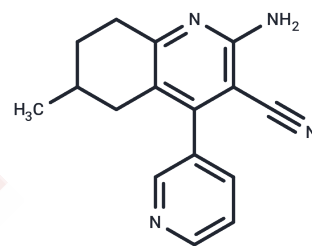


BRD6989

## Chemical Properties

CAS No. : 642008-81-9  
 Formula: C<sub>16</sub>H<sub>16</sub>N<sub>4</sub>  
 Molecular Weight: 264.33  
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year  
 Actual storage temperature shall be subject to the COA.



## Biological Description

Description	BRD6989 is an analog of the natural product cortistatin A (dCA). Which inhibits CDK8 and upregulates IL-10. BRD6989 inhibits the kinase activity of recombinant CDK8 or CDK19 complexes. BRD6989 selectively binds a complex of CDK8 with an IC <sub>50</sub> of ~200 nM.
Targets(IC <sub>50</sub> )	CDK,IL Receptor,Interleukin
In vitro	Pretreatment of BMDCs with BRD6989 (0-100 μM; for 48 hours) increases IL-10 production (EC <sub>50</sub> : ~1 μM). BRD6989 (0.6, 1.7, 5, 15 μM) suppresses phosphorylation of the STAT1 transactivation domain at Ser727 in IFNγ-stimulated BMDCs. BRD6989 (5 μM; 24 hours) enhances IL-10 production in activated human and murine macrophages and dendritic cells. BRD6989 (5 μM; ~2 hours) suppresses induction of STAT1-STAT2 activity and NF-κB activation to a varying degree after stimulation of BMDMs.

## Solubility Information

Solubility	DMSO: 11 mg/mL (41.61 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 1 mg/mL (3.78 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	3.7831 mL	18.9157 mL	37.8315 mL
5 mM	0.7566 mL	3.7831 mL	7.5663 mL
10 mM	0.3783 mL	1.8916 mL	3.7831 mL
50 mM	0.0757 mL	0.3783 mL	0.7566 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Johannessen L, et al. Small-molecule studies identify CDK8 as a regulator of IL-10 in myeloid cells. Nat Chem Biol. 2017 Oct;13(10):1102-1108

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