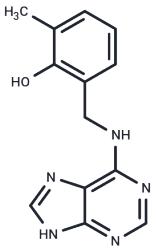
Data Sheet (Cat.No.T60390)

PI-55

Chemical Properties



CAS No. : 1122579-42-3

Formula: C13H13N5O

Molecular Weight: 255.28

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	PI-55 (6-(2-hydroxy-3-methylbenzylamino)purine) is a cytokinin receptor inhibitor that exhibits structural similarity to 6-benzylaminopurine (BAP). It competitively inhibits BAP binding on the specific Arabidopsis receptors CRE1/AHK4 and AHK3. Furthermore, PI-55 effectively suppresses cytokinins-induced haustorium formation and enhances parasite aggressiveness [1].
Targets(IC50)	Others,Parasite
In vitro	High concentrations of PI-55 (10 μM and 100 μM) result in partial inhibition of early haustorial structure development, particularly in the presence of cytokinin. Further, PI-55 treatment, when combined with BAP, diminishes the virulence of P. ramosa compared to the application of BAP alone. This suggests the involvement of histidine kinase receptors analogous to CRE1/AHK4 and AHK3 in the signaling pathway that initiates early haustorial formation [1].

Solubility Information

Solubility	DMSO: 25 mg/mL (97.93 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (3.92 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.9173 mL	19.5863 mL	39.1727 mL
5 mM	0.7835 mL	3.9173 mL	7.8345 mL
10 mM	0.3917 mL	1.9586 mL	3.9173 mL
50 mM	0.0783 mL	0.3917 mL	0.7835 mL

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

Goyet V, et al. Haustorium initiation in the obligate parasitic plant Phelipanche ramosa involves a host-exudated cytokinin signal. J Exp Bot. 2017;68(20):5539-5552.