

N6-Isopentenyladenosine

Chemical Properties

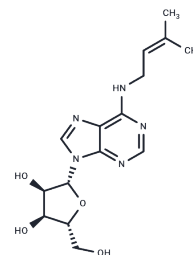
CAS No. : 7724-76-7

Formula: C₁₅H₂₁N₅O₄

Molecular Weight: 335.36

Storage: Store under nitrogen, Keep away from direct sunlight
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	N6-Isopentenyladenosine, an end product of the mevalonate pathway, is an autophagy inhibitor with anti-melanoma activity. N6-Isopentenyladenosine, an RNA modification found in cytokinins, regulates plant growth/differentiation and improves the efficiency
Targets(IC50)	Endogenous Metabolite, Autophagy
In vitro	N6-Isopentenyladenosine targets both AMPK and Rab7 prenylation and inhibits melanoma growth through the impairment of autophagic flux[1].

Solubility Information

Solubility	DMSO: 50 mg/mL (149.09 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: 2 mg/mL (5.96 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

	1mg	5mg	10mg
1 mM	2.9819 mL	14.9094 mL	29.8187 mL
5 mM	0.5964 mL	2.9819 mL	5.9637 mL
10 mM	0.2982 mL	1.4909 mL	2.9819 mL
50 mM	0.0596 mL	0.2982 mL	0.5964 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

1. Ranieri R, et al. N6-isopentenyladenosine dual targeting of AMPK and Rab7 prenylation inhibits melanoma growth through the impairment of autophagic flux. *Cell Death Differ.* 2018;25(2):353-367.
Cheng HP, et al. Chemical Deprenylation of N6 -Isopentenyladenosine (i6 A) RNA. *Angew Chem Int Ed Engl.* 2020; 59(26):10645-10650.
Colombo F, et al. Pharmacogenomics and analogues of the antitumour agent N6-isopentenyladenosine. *Int J Cancer.* 2009;124(9):2179-2185.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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