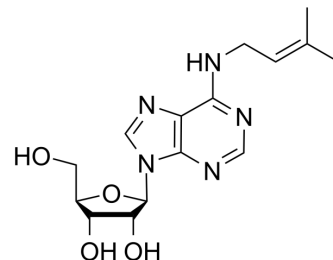


N6-Isopentenyladenosine

| | |
|---------------------------|--|
| Cat. No.: | HY-W011209 |
| CAS No.: | 7724-76-7 |
| Molecular Formula: | C ₁₅ H ₂₁ N ₅ O ₄ |
| Molecular Weight: | 335 |
| Target: | Autophagy; Endogenous Metabolite |
| Pathway: | Autophagy; Metabolic Enzyme/Protease |
| Storage: | 4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light) |



SOLVENT & SOLUBILITY

In Vitro

1M HCl : 100 mg/mL (298.51 mM; adjust pH to 1 with HCl)
DMSO : 100 mg/mL (298.51 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent Concentration | Mass | | |
|---------------------------|-----------------------|-----------|------------|------------|
| | | 1 mg | 5 mg | 10 mg |
| | 1 mM | 2.9851 mL | 14.9254 mL | 29.8507 mL |
| | 5 mM | 0.5970 mL | 2.9851 mL | 5.9701 mL |
| | 10 mM | 0.2985 mL | 1.4925 mL | 2.9851 mL |

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (7.46 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (7.46 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (7.46 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

N6-Isopentenyladenosine (Riboprine), an RNA modification found in cytokinins, which regulate plant growth/differentiation, and a subset of tRNAs, where it improves the efficiency and accuracy of translation. N6-Isopentenyladenosine, an end product of the mevalonate pathway, is an autophagy inhibitor with an interesting anti-melanoma activity^{[1][2][3]}.

In Vitro

N6-isopentenyladenosine dual targeting of AMPK and Rab7 prenylation inhibits melanoma growth through the impairment of autophagic flux^[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Talanta. 22 May 2023, 124697

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REFERENCES

- [1]. Colombo F, et al. Pharmacogenomics and analogues of the antitumour agent N6-isopentenyladenosine. *Int J Cancer*. 2009;124(9):2179-2185.
- [2]. 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.
- [3]. Cheng HP, et al. Chemical Deprenylation of N6 -Isopentenyladenosine (i6 A) RNA. *Angew Chem Int Ed Engl*. 2020;59(26):10645-10650.
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Caution: Product has not been fully validated for medical applications. For research use only.

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