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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

2'-Deoxyinosine

Cat. No.: HY-W008638

CAS No.: 890-38-0

Molecular Formula: $C_{10}H_{12}N_4O_4$

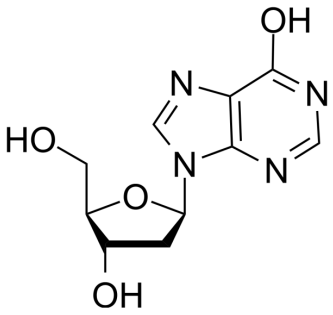
Molecular Weight: 252.23

Target: Endogenous Metabolite

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (198.23 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.9646 mL	19.8232 mL	39.6464 mL
	5 mM	0.7929 mL	3.9646 mL	7.9293 mL
	10 mM	0.3965 mL	1.9823 mL	3.9646 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (9.91 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.91 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.91 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

2'-deoxyadenosine inhibits the growth of human colon-carcinoma cell lines and is found to be associated with purine nucleoside phosphorylase (PNP) deficiency.

IC_{50} & Target		
	Human Endogenous Metabolite	Human Endogenous Metabolite

In Vitro

In the absence of deoxycoformycin, 2'-deoxyadenosine is primarily deaminated to 2'-deoxyinosine and then converted into hypoxanthine. In the presence of the inhibitor, the deoxynucleoside, in addition to a phosphorylation process, undergoes

phosphorolytic cleavage giving rise to adenine. The conversion of 2'-deoxyadenosine to adenine might represent a protective device, emerging when the activity of adenosine deaminase is reduced or inhibited. There is much evidence to indicate that the enzyme catalyzing this processs may be distinct from methylthioadenosine phosphorylase and S-adenosyl homocysteine hydrolase, which are the enzymes reported to be responsible for the formation of adenine from 28-deoxyadenosine in mammals[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay [1]

Various amounts of cells, ranging from 1,000 to 900,000, suspended in 3 mL of standard medium, are plated in 35-mm dishes and incubated in the absence (control) and in the presence of both 1 μM dCF and 0.1 mM dAdo, as indicated in each experiment. dCf was added to the standard medium 30 min before 2'-deoxyadenosine (dAdo). Furthermore, an incubation is performed in which 0.1 mM 2'-deoxyadenosine alone is added to the standard medium. After 4 days of incubation, the standard medium is withdrawn, then 0.5 mL of 0.025% trypsin containing 0.02% EDTA is added and kept for few minutes at 37°C. The cells are collected, diluted in an appropriate volume of standard medium, and counted[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Talanta. 2023 Sep 6, 125171.

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REFERENCES

[1]. Bemi V, et al. Deoxyadenosine metabolism in a human colon-carcinoma cell line (LoVo) in relation to its cytotoxic effect in combination with deoxycoformycin. Int J Cancer. 1998 Mar 2;75(5):713-20.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA