N-Deshydroxyethyl Dasatinib

Cat. No.: HY-107447

CAS No.: 910297-51-7

Molecular Formula: $C_{20}H_{22}ClN_7OS$

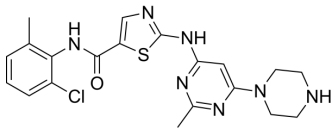
Molecular Weight: 443.95

Target: Drug Metabolite

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 55 mg/mL (123.89 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.2525 mL	11.2625 mL	22.5251 mL
5 mM	0.4505 mL	2.2525 mL	4.5050 mL
10 mM	0.2253 mL	1.1263 mL	2.2525 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: ≥ 2.75 mg/mL (6.19 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.75 mg/mL (6.19 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.75 mg/mL (6.19 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

N-Deshydroxyethyl Dasatinib (N-Deshydroxyethyl BMS-354825) is a metabolite of Dasatinib, Dasatinib is a multi-kinase inhibitor that potently inhibits Bcr-Abl, Src family and platelet-derived growth factor receptor kinases. N-Deshydroxyethyl Dasatinib can be used in cancer and immune disease research[1][2].

In Vivo

Pharmacokinetic Parameters of N-Deshydroxyethyl Dasatinib in Wistar Rats[2].

Analyte	C_{max} (ng/mL)	AUC_{0-t} (h*ng/mL)	AUC_{0-inf} (h*ng/mL)	T_{max} (h)	$T_{1/2}$ (h)	K_{el} (h^{-1})
N-Deshydroxyethyl Dasatinib	2.05	8.7	23.9	2.0	10.293	0.072

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

REFERENCES

[1]. Thappali SR, et al. Simultaneous determination of methotrexate, dasatinib and its active metabolite N- deshydroxyethyl dasatinib in rat plasma by LC-MS/MS: method validation and application to pharmacokinetic study. Arzneimittelforschung. 2012 Dec;62(12):624-30.

[2]. Shibata N, et al. Development of protein degradation inducers of oncogenic BCR-ABL protein by conjugation of ABL kinase inhibitors and IAP ligands. Cancer Sci. 2017 Aug;108(8):1657-1666.

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