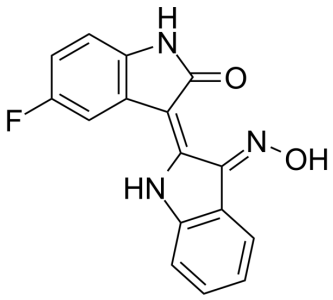
5'-Fluoroindirubinoxime

Cat. No.:	HY-103464
CAS No.:	861214-33-7
Molecular Formula:	$C_{16}H_{10}FN_3O_2$
Molecular Weight:	295.27
Target:	FLT3
Pathway:	Protein Tyrosine Kinase/RTK
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 83.33 mg/mL (282.22 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.3867 mL	16.9337 mL	33.8673 mL
5 mM	0.6773 mL	3.3867 mL	6.7735 mL
10 mM	0.3387 mL	1.6934 mL	3.3867 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: ≥ 2.08 mg/mL (7.04 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

5'-Fluoroindirubinoxime (5'-FIO, compound 13), an Indirubin (HY-N0117) derivative, is a potent FLT3 inhibitor, with an IC_{50} of 15 nM[1].

IC_{50} & Target

15 nM (FLT3)[1].

In Vitro

5'-Fluoroindirubinoxime (5'-FIO, compound 13) exhibits IC_{50} values of 1.53 μM and 1.27 μM for VEGFR2 and Aurora A, respectively[1].

5'-Fluoroindirubinoxime (5'-FIO) exhibits IC_{50} values of 12.2 μM, 2.1 μM, 3.4 μM and 5.1 μM in A549, SNU-638, HT-1080 and RK3E-ras cancer cells, respectively. 5'-Fluoroindirubinoxime (5'-FIO) induces the apoptosis in RK3E-ras cells[2].

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

In Vivo

5'-Fluoroindirubinoxime (5'-FIO, 10 μmol/L/100 μL (~2.95 mg/mL) every other day beginning on day 6, S.C..) exhibits

significant anti-tumor activity in rats[2].

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Animal Model:	Rat tumor model based RK3E-ras cells[2].
Dosage:	S.C..
Administration:	10 μmol/L/100 μL (~2.95 mg/mL) every other day beginning on day 6.
Result:	Effectively inhibited tumor growth.

REFERENCES

[1]. Choi SJ, et al. Indirubin derivatives as potent FLT3 inhibitors with anti-proliferative activity of acute myeloid leukemic cells. Bioorg Med Chem Lett. 2010 Mar 15;20(6):2033-7.

[2]. Kim SA, et al. Antitumor activity of novel indirubin derivatives in rat tumor model. Clin Cancer Res. 2007 Jan 1;13(1):253-9.

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