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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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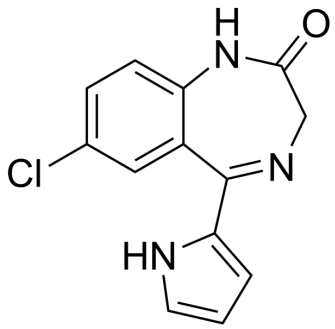
Ro5-3335

Cat. No.:	HY-108470		
CAS No.:	30195-30-3		
Molecular Formula:	$C_{13}H_{10}ClN_3O$		
Molecular Weight:	259.69		
Target:	Others		
Pathway:	Others		
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 : 100 mg/mL (385.07 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.8507 mL	19.2537 mL	38.5075 mL
	5 mM	0.7701 mL	3.8507 mL	7.7015 mL
	10 mM	0.3851 mL	1.9254 mL	3.8507 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 (9.63 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.63 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Ro5-3335, a benzodiazepine, acts as an inhibitor of core binding factor (CBF) leukemia. Ro5-3335 is a RUNX1-CBFβ interaction inhibitor that represses RUNX1/CBFB-dependent transactivation[1].

IC_{50} & Target

RUNX1-CBFβ interaction[1]

In Vitro

Ro5-3335 has antiproliferative activity against human CBF leukemia cell lines, with IC_{50}s of 1.1 μM, 21.7 μM and 17.3 μM for ME-1, Kasumi-1 and REH, respectively[1].
?Ro5-3335 inhibits definitive hematopoiesis in zebrafish embryos[1].
?Ro5-3335 does not completely break apart RUNX1-CBFβ interaction, but changes the conformation of their complex or increases the distance between RUNX1 and CBFβ in the complex[1].

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

In Vivo

Ro5-3335 is identified as an inhibitor of RUNX1–CBFβ function in zebrafish models[1].
?Ro5-3335 rescues preleukemic phenotype in a RUNX1-ETO transgenic zebrafish[1].
?Ro5-3335 (300 mg/kg/d; p.o; for 30 days) reduces leukemia burden in a mouse CBFB-MYH11 leukemia model[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	C57BL/6 mice (leukemic model)[1]
Dosage:	300 mg/kg
Administration:	Oral administration; daily; for 30 days
Result:	Reduced the number of c-kit$^+$ cells in the transplanted mice and leukemic cell infiltration in the livers, bone marrow and spleen.

CUSTOMER VALIDATION

- Nat Immunol. 2023 Dec;24(12):2042-2052.
- Biochem Pharmacol. 2023 Sep 14;115808.
- J Dent Sci. 2023 Mar 14.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Cunningham L, et al. Identification of benzodiazepine Ro5-3335 as an inhibitor of CBF leukemia through quantitative high throughput screen against RUNX1-CBFβ interaction. Proc Natl Acad Sci U S A. 2012 Sep 4;109(36):14592-7.

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