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Produktinformation

- Forschungsprodukte & Biochemikalien
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- Diagnostik & molekulare Diagnostik
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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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KRIBB11

Cat. No.: HY-100872

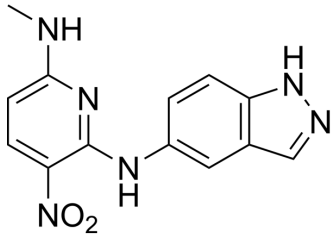
CAS No.: 342639-96-7

Molecular Formula: $C_{13}H_{12}N_6O_2$

Molecular Weight: 284.27

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 : 125 mg/mL (439.72 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.5178 mL	17.5889 mL	35.1778 mL
	5 mM	0.7036 mL	3.5178 mL	7.0356 mL
	10 mM	0.3518 mL	1.7589 mL	3.5178 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 (8.79 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

KRIBB11 is an inhibitor of Heat shock factor 1 (HSF1), with IC_{50} of 1.2 μM.

IC_{50} & Target

IC50: 1.2 μM (HSF1)[1]

In Vitro

KRIBB11 blocks the induction of HSF1 downstream target proteins such as HSP27 and HSP70. KRIBB11 induces growth arrest and apoptosis of HCT-116 cells. KRIBB11 inhibits HSF1-dependent recruitment of p-TEFb (positive transcription elongation factor b) to the hsp70 promoter[1]. PARP and caspase-3 cleavage is increased in cells treated with KRIBB11. Incubating RKO with KRIBB11, shows a toxic threshold of about 10 μM, and an IC_{50} of 20-30 μM[2].

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

In Vivo

KRIBB11 (50 mg/kg, i.p.) results in a 47.4% inhibition of tumor growth in nude mice, without body weight loss[1].

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

PROTOCOL

Kinase Assay [1]	HCT-116 cells are washed with PBS and then homogenized with a 27-gauge syringe in binding buffer (10 mm Tris-HCl (pH 7.4), 50 mm KCl, 5 mm $MgCl_2$, 1 mm EDTA, and 0.1 mm Na_3VO_4). The cell lysate is centrifuged at 13,000 rpm for 30 min at 4°C, and the supernatant is collected. The HCT-116 cell lysate supernatant is precleared by incubating with Dynabeads M-280 streptavidin for 30 min at 4°C and captured by magnet separation. The cleared supernatants are incubated with biotinyl-KRIBB11 compound. After overnight incubation at 4°C, proteins associated with the biotinyl-KRIBB11 compound are precipitated with Dynabeads M-280 streptavidin. Precipitated samples are separated by a magnet. Samples are washed with 1 mL of ishing buffer containing 50 mm HEPES (pH 7.5), 50 mm NaCl, 1 mm EDTA, 1 mm EGTA, 0.1% Tween 20, 10% (v/v) glycerol, 1 mm NaF, 0.1 mm Na_3VO_4, and protease inhibitor mixture tablets (1 tablet/10 mL). Samples are boiled in SDS-PAGE sample buffer, separated by 10% polyacrylamide gel, and immunoblotted with antibodies against HSF1, HSF2, HSP90, or CDK9. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Cell Assay [1]	Cells are seeded onto 96-well plates at a density of 6×10^3 cells per well in McCoy's 5A medium with 10% FBS. After 24 h, the medium is replenwashed with fresh complete medium containing chemicals or 0.1% DMSO. After incubation for 48 h, the cell proliferation reagent WST-1 is added to each well. The amount of WST-1 formazan produced is measured at 450 nm using an ELISA reader. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Animal Administration [1]	Seven-week-old female inbred specific pathogen-free Balb/c nude mice are housed under sterile conditions with 12-h light/dark cycles, and fed food and water ad libitum. For the evaluation of the in vivo anti-tumor activity of KRIBB11, HCT-116 cells (0.3 mL of 4×10^7 cells/mL) are implanted subcutaneously into the right flank of the mice on day 0. KRIBB11 is dissolved in 10% dimethylacetamide, 50% PEG300, and 40% distilled water. When the size of tumors reached 72.2 mm^3, the compound is administered intraperitoneally at a dose of 50 mg/kg/day for 18 days. Tumor volumes are estimated by using the formula length (mm) × width (mm) × height (mm)/2. To determine the toxicity of the compound, the body weight of tumor-bearing animals is recorded. On day 18, the mice are sacrificed, and the tumors are weighed. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Sci Transl Med. 2020 May 6;12(542):eaba0769.
- J Exp Clin Cancer Res. 2021 Jan 9;40(1):25.
- Cancer Res. 2019 Oct 15;79(20):5233-5244.
- EMBO Mol Med. 2021 Jul 5;e13792.
- Cell Death Dis. 2017 Dec 12;8(12):3203.

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