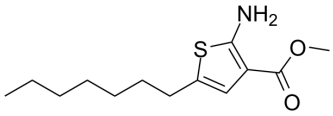
TJ191

Cat. No.:	HY-120075
CAS No.:	1522415-97-9
Molecular Formula:	$C_{13}H_{21}NO_2S$
Molecular Weight:	255.38
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (391.57 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.9157 mL	19.5787 mL	39.1573 mL
	5 mM	0.7831 mL	3.9157 mL	7.8315 mL
	10 mM	0.3916 mL	1.9579 mL	3.9157 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 (9.79 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.79 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

TJ191 is a potent and specific anti-cancer agent that targets low TβRIII-expressing malignant T-cell leukemia/lymphoma cells. TJ191 has no affects on the proliferation of other cancer cells or normal fibroblasts or immune cells. TJ191 can be used for cancer research[1].

In Vitro

TJ191(0-100 μM; 24 hours) exhibits pronounced anti-proliferative activity in malignant cell lines, the IC_{50} values are 0.13 μM, 0.13±0.08 μM, 0.26±0.19 μM, 0.22±0.11 μM, 1.5±0.02 μM, 0.32±0.086 μM, 3.1±0.5 μM, 0.26±0.16 μM in CEM, JURKAT, MOLT-3, MOLT-4, SUP-T1, MT-2, C8166 and HSB-2 cells, respectively. But has no effects in HUT-78 (IC_{50}=17±10 μM) and MT-4 (IC_{50}=47 ± 5 μM) cells[1].

TJ191 (0.1-3 μM; 8 or 24 hours) induces CEM cell apoptosis in a concentration- and time-dependent manner. Even at 0.3 μM, TJ191 induces the maximum apoptotic rate of 80% after 24 h[1].

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

Cell Viability Assay[1]	
Cell Line:	Malignant T-cell leukemia/lymphoma cells
Concentration:	0.01 μM, 0.1 μM, 1 μM, 10 μM, 100 μM
Incubation Time:	24 hours
Result:	Exhibited inhibitory effects in drug-sensitive cells with IC_{50} ranging 0.13 μM to 3.1 μM.

Apoptosis Analysis[1]	
Cell Line:	CEM cell line
Concentration:	0.1-3 μM
Incubation Time:	8 or 24 hours
Result:	Led to cell apoptosis.

REFERENCES

[1]. Ahmed El-Gazzar, et al. 2-Amino-3-methylcarboxy-5-heptyl-thiophene (TJ191) is a selective anti-cancer small molecule that targets low TβRIII-expressing malignant T-cell leukemia/lymphoma cells. Oncotarget. 2017 Dec 15;9(5):6259-6269.

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