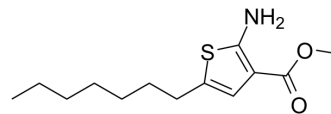


TJ191

Cat. No.:	HY-120075
CAS No.:	1522415-97-9
Molecular Formula:	C ₁₃ H ₂₁ NO ₂ S
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)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	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 effects on the proliferation of other cancer cells or normal fibroblasts or immune cells. TJ191 can be used for cancer research ^[1] .
In Vitro	<p>TJ191(0-100 μM; 24 hours) exhibits pronounced anti-proliferative activity in malignant cell lines, the IC₅₀ 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 (IC₅₀=17±10 μM) and MT-4 (IC₅₀=47 ± 5 μM) cells^[1].</p> <p>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].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

Cell Viability Assay^[1]

Cell Line:	Malignant T-cell leukemia/lymphoma cells
Concentration:	0.01 μ M, 0.1 μ M, 1 μ M, 10 μ M, 100 μ M
Incubation Time:	24 hours
Result:	Exhibited inhibitory effects in drug-sensitive cells with IC ₅₀ ranging 0.13 μ M to 3.1 μ M.

Apoptosis Analysis^[1]

Cell Line:	CEM cell line
Concentration:	0.1-3 μ M
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 T β R111-expressing malignant T-cell leukemia/lymphoma cells. Oncotarget. 2017 Dec 15;9(5):6259-6269.

Caution: Product has not been fully validated for medical applications. For research use only.

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