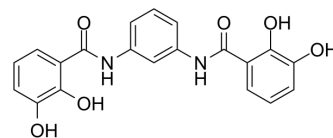


MST-312

Cat. No.:	HY-120145		
CAS No.:	368449-04-1		
Molecular Formula:	C ₂₀ H ₁₆ N ₂ O ₆		
Molecular Weight:	380.35		
Target:	Telomerase		
Pathway:	Cell Cycle/DNA Damage		
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 : 75 mg/mL (197.19 mM; ultrasonic and warming and heat to 60°C)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.6292 mL	13.1458 mL	26.2916 mL
	5 mM	0.5258 mL	2.6292 mL	5.2583 mL
	10 mM	0.2629 mL	1.3146 mL	2.6292 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 3.75 mg/mL (9.86 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: 3.75 mg/mL (9.86 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 3.75 mg/mL (9.86 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

MST-312 is a telomerase inhibitor. MST-312 is a chemically modified derivative of green tea epigallocatechin gallate (EGCG). MST-312 can be used for the research of cancer, such as multiple myeloma (MM)^[1].

IC₅₀ & Target

telomeras^[1]

In Vitro

MST-312 (2~8 μM; 0~72 hours; U-266 cells) reduces cellular viability in a dose dependent and time-dependent manner^[1].
MST-312 (2~8 μM; 48 hours; U-266 cells) induces cell apoptosis in a dose-dependent manner^[1].

MST-312 (2 μ M; 48 hours; U-266 cells) up-regulates the pro-apoptotic gene Bax and down-regulates the anti-apoptotic gene Bcl-2 and suppresses the expression of c-Myc and hTERT genes^[1].

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

Cell Viability Assay^[1]

Cell Line:	U-266 cells
Concentration:	2~8 μ M
Incubation Time:	0~72 hours
Result:	The viability of U-266 cells was substantially decreased in a dose dependent and time-dependent manner, in response to exposure to MST-312.

Apoptosis Analysis^[1]

Cell Line:	U-266 cells
Concentration:	2~8 μ M
Incubation Time:	48 hours
Result:	Induced cell apoptosis in a dose-dependent manner.

RT-PCR^[1]

Cell Line:	U-266 cells
Concentration:	2 μ M
Incubation Time:	48 hours
Result:	Up-regulated the pro-apoptotic gene Bax and down-regulated the anti-apoptotic gene Bcl-2 and suppressed the expression of c-Myc and hTERT genes.

REFERENCES

[1]. Ameri Z, et al. Telomerase inhibitor MST-312 induces apoptosis of multiple myeloma cells and down-regulation of anti-apoptotic, proliferative and inflammatory genes. Life Sci. 2019;228:66-71.

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

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