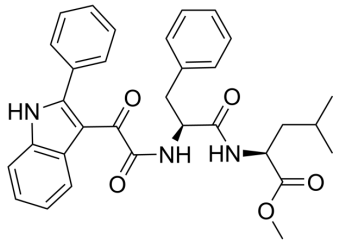
MDM2-p53-IN-16

Cat. No.:	HY-148833		
CAS No.:	1917350-09-4		
Molecular Formula:	$C_{32}H_{33}N_3O_5$		
Molecular Weight:	539.62		
Target:	MDM-2/p53		
Pathway:	Apoptosis		
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 : 100 mg/mL (185.32 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.8532 mL	9.2658 mL	18.5316 mL
	5 mM	0.3706 mL	1.8532 mL	3.7063 mL
	10 mM	0.1853 mL	0.9266 mL	1.8532 mL

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

BIOLOGICAL ACTIVITY

Description

MDM2-p53-IN-16 is a MDM2-p53 complex inhibitor with an IC_{50} value of 4.3 nM to dissociate human p53/MDM2 complex. MDM2-p53-IN-16 reactivates p53, and induces Glioblastoma Multiforme (GBM) cell apoptosis and cell-cycle arrest. MDM2-p53-IN-16 can be used for the cancer research[1].

In Vitro

MDM2-p53-IN-16 (0.01 nM-100 μM; 1 hour) dissociates MDM2-p53 interaction with an IC_{50} value of 4.3 nM[1].
MDM2-p53-IN-16 (1 μM; 8 hours) significantly increases the levels of p53 in GBM cells[1].
MDM2-p53-IN-16 (1 μM; 6 hours) increases the mRNA levels of p53 target genes: MDM2, PUMA and p21 in U87MG cells[1].
MDM2-p53-IN-16 binds with translocator protein (TSPO) with a K_i value of 87.2 nM[1].
MDM2-p53-IN-16 (1 μM; 24 hours) induces early and late apoptosis and cell cycle arrest of U87MG cells[1].
MDM2-p53-IN-16 (1-10000 nM; 48 h) shows antiproliferative activities to U87MG and wild-type p53 U343MG cells with IC_{50} values of 1.2 and 1.6 μM, respectively[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	U87MG, U343MG and T98G cell lines
Concentration:	1-10000 nM
Incubation Time:	48 hours
Result:	Inhibited cell proliferation of U87MG, U343MG and T98G cells.

Apoptosis Analysis[1]

Cell Line:	U87MG cell line
Concentration:	1 μM
Incubation Time:	24 hours
Result:	Induced cell apoptosis of U87MG cells.

Cell Cycle Analysis[1]

Cell Line:	U87MG, U343MG and T98G cell lines
Concentration:	1-10000 nM
Incubation Time:	48 hours
Result:	Induced cell cycle arrest progression in the G2/M-phase of U87MG cells.

REFERENCES

[1]. Daniele S, et al. Lead Optimization of 2-Phenylindolylglyoxylyldipeptide Murine Double Minute (MDM)2/Translocator Protein (TSPO) Dual Inhibitors for the Treatment of Gliomas. J Med Chem. 2016 May 26;59(10):4526-38.

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