MI-773

Cat. No.: HY-17493

CAS No.: 1303607-07-9

Molecular Formula: $C_{29}H_{34}Cl_2FN_3O_3$

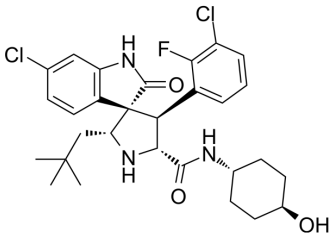
Molecular Weight: 562.5

Target: MDM-2/p53; E1/E2/E3 Enzyme

Pathway: Apoptosis; Metabolic Enzyme/Protease

Storage: 4°C, stored under nitrogen

* In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 53 mg/mL (94.22 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.7778 mL	8.8889 mL	17.7778 mL
5 mM	0.3556 mL	1.7778 mL	3.5556 mL
10 mM	0.1778 mL	0.8889 mL	1.7778 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 (4.44 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (4.44 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.44 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

MI-773 is a potent MDM2-p53 protein□protein interaction (PPI) inhibitor with high binding affinity against MDM2 (K_d=8.2 nM). MI-773 has antitumor activity[1][2].

In Vitro

SAR405838 (MI-77301), an analog of MI-773, displays 10 times higher binding affinity against MDM2 than MI-773 (K_d=62 vs 8.2 nM). The antitumor activity of MI-77301 is more pronounced in a set of wild type p53 xenograft models than MI-773, including SJSA-1 osteosarcoma, human prostate, melanoma, colorectal tumor, LNCAP human prostate tumor and human acute lymphoblastic leukemia[1].

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

CUSTOMER VALIDATION

- Nat Chem Biol. 2018 Feb;14(2):118-125.
- Mater Sci Eng C Mater Biol Appl. 2020 Mar;108:110403.
- BMC Biol. 2017 Nov 9;15(1):108.
- Patent. US20230088286A1.

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REFERENCES

[1]. Zhang Q, et al. Targeting p53-MDM2-MDMX loop for cancer therapy. Subcell Biochem. 2014;85:281-319.

[2]. Tatyana A Grigoreva, et al. Amino acids as chiral derivatizing agents for antiproliferative substituted N-benzyl isoindolinones. Chirality. 2018 Jun;30(6):785-797.

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