Iniparib

Cat. No.: HY-12015

CAS No.: 160003-66-7

Molecular Formula: $C_7H_5IN_2O_3$

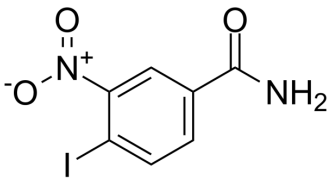
Molecular Weight: 292.03

Target: PARP; Influenza Virus

Pathway: Cell Cycle/DNA Damage; Epigenetics; Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (342.43 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.4243 mL	17.1215 mL	34.2431 mL
	5 mM	0.6849 mL	3.4243 mL	6.8486 mL
	10 mM	0.3424 mL	1.7122 mL	3.4243 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 (8.56 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (8.56 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Iniparib (BSI-201) is an irreversible inhibitor of PARP1, used in the research of triple negative breast cancer.

IC_{50} & Target

PARP1

In Vitro

Iniparib nonselectively modifies cysteine-containing proteins in tumor cells[1]. Iniparib (100 μM) weakly inhibits SSB repair, and the inhibition can be reversed by knockdown of PARP1[2]. Iniparib in combination with cisplatin is cytotoxic to Myc/MDA-231 with EMT changes[3].

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

PROTOCOL

Cell Assay [1]

For nine day cell proliferation assay, MDA-MB-436 and MDA-MB-231 cells are plated at 2000 and 500 cells/well respectively in a 96-well plate and treated with veliparib, cmpd-A, cmpd-C, Iniparib or Iniparib-met at 0, 0.0001, 0.01,0.1, 1 or 10 μM for nine days. For five day cell proliferation assay, MDAMB-231 and MDA-MB-436 cells are plated at 1000 and 4000 cells/well respectively in a 96-well plate and treated with Iniparib or Iniparib-met at 0. 0.1, 0.3, 1, 3 or 10 μM in the presence of 0, 1.8, 3.75, or 7.5 μM BSO for 5 days. DLD1^{+}/$^{+}$ and DLD1^{-}/$^{-}$ cells are plated at 1000 cells/well in a 96-well plate and treated with TMZ at 0, 0.003, 0.01, 0.03, 0.1, 0.3 or 1 mM in the presence of 0, 0.005, 0.05, 0.5, or 5 μM veliparib, or Iniparib for five days. After treatment, cell titer glow is carried out[1].

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

CUSTOMER VALIDATION

- Nucleic Acids Res. 2023 May 4;gkad291.
- Clin Cancer Res. 2017 Feb 15;23(4):1001-1011.
- Acta Biomater. 2021 Oct 27;S1742-7061(21)00703-0.
- J Mol Med (Berl). 2019 Aug;97(8):1183-1193.
- Patent. US20180362972A1.

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REFERENCES

[1]. Ma W, et al. Differential effects of poly(ADP-ribose) polymerase inhibition on DNA break repair in human cells are revealed with Epstein-Barr virus. Proc Natl Acad Sci U S A. 2012 Apr 24;109(17):6590-5.

[2]. Liu X, et al. Iniparib nonselectively modifies cysteine-containing proteins in tumor cells and is not a bona fide PARP inhibitor. Clin Cancer Res. 2012 Jan 15;18(2):510-23.

[3]. Yin S, et al. Myc mediates cancer stem-like cells and EMT changes in triple negative breast cancers cells. PLoS One. 2017 Aug 17;12(8):e0183578.

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