SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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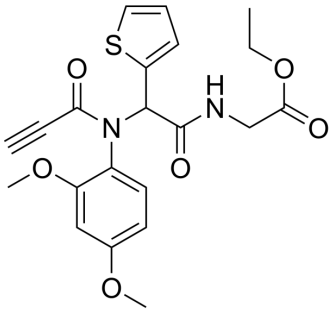
PACMA 31

Cat. No.:	HY-100433
CAS No.:	1401089-31-3
Molecular Formula:	$C_{21}H_{22}N_2O_6S$
Molecular Weight:	430.47
Target:	PDI
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease
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 (232.30 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.3230 mL	11.6152 mL	23.2304 mL
5 mM	0.4646 mL	2.3230 mL	4.6461 mL
10 mM	0.2323 mL	1.1615 mL	2.3230 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 (5.81 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.81 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

PACMA 31 is an irreversible, orally active protein disulfide isomerase (PDI) inhibitor with an IC_{50} of 10 μM. PACMA 31 forms a covalent bond with the active site cysteines of PDI. PACMA 31 shows tumor targeting ability and significantly suppresses ovarian tumor growth without causing toxicity to normal tissues[1]. PACMA 31 is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAc) with molecules containing Azide groups.

IC_{50} & Target

IC50: 10 μM (protein disulfide isomerase)[1]

In Vitro

PACMA 31 (0-10 μM; 24 hours) significantly inhibits colony formation in OVCAR-8 cells in a dose-dependent manner[1].

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

In Vivo

PACMA 31 (20-200 mg/kg; i.p.; daily for 62 days) suppresses tumor growth in human ovarian cancer mouse xenografts [1].

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

Animal Model:	Athymic mice (bearing OVCAR-8 cells)[1]
Dosage:	20-200 mg/kg
Administration:	I.p., per day for the first 3 wk with 5-d on and 2-d off treatment cycles, and dose was escalated to 40 mg/kg per day for the next 7 d; p.o., the initial dose of 20 mg/kg per day was gradually increased by 20 mg/kg per day with each dose for 3 d before it was orally dosed at 200 mg/kg per day for an additional 32 d, increasing the dose from 20 to 200 mg/kg
Result:	Compared with the control group, i.p. or per os administration of PACMA 31 significantly inhibited tumor growth by 85% and 65% at day 62, respectively.

REFERENCES

[1]. Xu S, et al. Discovery of an orally active small-molecule irreversible inhibitor of protein disulfide isomerase for ovarian cancer treatment. Proc Natl Acad Sci U S A. 2012;109(40):16348-16353.

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