SZABO SCANDIC

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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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IITZ-01

Cat. No.: HY-112897

CAS No.: 1807988-47-1

Molecular Formula: $C_{26}H_{23}FN_8O$

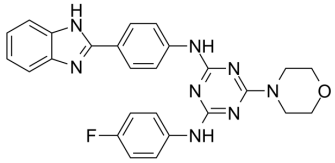
Molecular Weight: 482.51

Target: Autophagy; PI3K; Apoptosis

Pathway: Autophagy; PI3K/Akt/mTOR; Apoptosis

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 : 150 mg/mL (310.87 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.0725 mL	10.3625 mL	20.7250 mL
	5 mM	0.4145 mL	2.0725 mL	4.1450 mL
	10 mM	0.2072 mL	1.0362 mL	2.0725 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 (5.18 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (5.18 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.18 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

IITZ-01 is a potent lysosomotropic autophagy inhibitor with single-agent antitumor activity, with an IC_{50} of 2.62 μM for PI3K γ.

IC_{50} & Target		
	PI3Kγ 2.62 μM (IC_{50})	Autophagy

In Vitro

IITZ-01 (0-2 μM, 24 h) enhances autophagosomes formation as indicated by increased expression of LC3-II levels time- and

dose-dependently in triple-negative breast cancer (TNBC) cell lines (MDA-MB-231 and MDA-MB-453). IITZ-01 also demonstrates potent autophagy inhibitory activity in other breast, lung, and colon cancer cells[1].

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

Western Blot Analysis[1]

Cell Line:	Triple-negative breast cancer (TNBC) cell lines (MDA-MB-231 and MDA-MB-453).
Concentration:	0-2 μM.
Incubation Time:	24 hours.
Result:	Enhanced autophagosomes formation as indicated by increased expression of LC3-II levels.

In Vivo

IITZ-01 (45 mg/kg, i.p. every alternate day for 4 weeks) inhibits average breast tumor growth when compared with control from third day of treatment in triple-negative breast tumor models in mice[1].

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

Animal Model:	MDA-MB-231 (TNBC)/green fluorescent protein (GFP) orthotropic breast cancer xenografts were developed in CrTac:NCr-Foxn^{nu} BALB/c female nude mice[1].
Dosage:	45 mg/kg.
Administration:	Intraperitoneal every alternate day for 4 weeks.
Result:	Inhibited average breast tumor growth when compared with control from third day of treatment.

REFERENCES

[1]. Guntuku L, et al. IITZ-01, a novel potent lysosomotropic autophagy inhibitor, has single-agent antitumor efficacy in triple-negative breast cancer in vitro and in vivo. Oncogene. 2018 Aug 30.

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