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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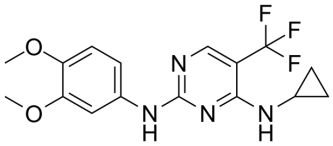
SBP-7455

Cat. No.:	HY-137742
CAS No.:	1884222-74-5
Molecular Formula:	$C_{16}H_{17}F_3N_4O_2$
Molecular Weight:	354.33
Target:	ULK; Autophagy
Pathway:	Autophagy
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 : 125 mg/mL (352.78 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.8222 mL	14.1111 mL	28.2223 mL
	5 mM	0.5644 mL	2.8222 mL	5.6445 mL
	10 mM	0.2822 mL	1.4111 mL	2.8222 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: ≥ 2.08 mg/mL (5.87 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.87 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

SBP-7455 is a potent, high affinity and orally active dual ULK1/ULK2 autophagy inhibitor with IC_{50}s of 13 nM and 476 nM in the ADP-Glo assays, respectively. SBP-7455 potently inhibits ULK1/2 enzymatic activity and can be used for triple-negative breast cancer (TNBC) research[1].

IC_{50} & Target

ULK1	ULK2
13 nM (IC_{50})	476 nM (IC_{50})

In Vitro

SBP-7455 (compound 26; 72 h) treatment inhibits cell growth with an IC_{50} of 0.3 μM for MDA-MB-468 cells. SBP-7455 inhibits starvation-induced autophagic flux in TNBC cells that are dependent on autophagy for survival[1].

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

In Vivo	A single dose of SBP-7455 (compound 26) (30 mg/kg) is orally administered to mice. The T_{max} for SBP-7455 is approximately 1 h, the C_{max} is 990 nM and the $T_{1/2}$ is 1.7 h. The plasma concentration of SBP-7455 remains above the ULK1 IC_{50} for almost 4 h after oral dosing[1]. The mice are dosed with SBP-7455 (compound 26) (10 mg/kg) by oral gavage, and liver samples were collected after 2 h. The results reveals robust inhibition of pATG13 (Ser318), as well as downregulation of total ATG13 and ULK1 levels by SBP-7455 [1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Huiyu Ren, et al. Design, Synthesis, and Characterization of an Orally Active Dual-Specific ULK1/2 Autophagy Inhibitor that Synergizes with the PARP Inhibitor Olaparib for the Treatment of Triple-Negative Breast Cancer. J Med Chem. 2020 Dec 10;63(23):1460

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